

**Workplaces as sights (sites) for learning:
An investigation of the value of teacher industry placements**

Thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

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Abstract

Building the capacity of Australian organisations continues to be a challenge in today's changing work environments. Increasing concern about the calibre of graduates entering the workforce highlights a 'disconnect' between pedagogy and contemporary business practices, as the Higher Education (HE) and Vocational Education and Training (VET) sectors seek to address industry's demand for employment-ready graduates. In order to meet this challenge, HE and VET educators are expected to have current industry knowledge and skills relevant to their areas of teaching, yet there is considerable difficulty in forging academia-industry partnerships to achieve this.

Teacher placement in industry (TPI) schemes are a form of continuing professional development, whereby the teacher spends a predetermined period of time working for a host organisation *in situ*, immersed in contemporary industry-based processes, whilst working alongside peers. For HE and VET educators, TPI provides opportunities for teachers to upgrade and/or expand their industry knowledge and skills to support teaching and learning. For enterprises, TPI initiatives may contribute to the creation of new knowledge and build organisational capacity through the transfer of information and ideas between educators and firms' employees. Yet, notwithstanding the acknowledged benefits of TPI, the challenges of implementing such initiatives are at odds with broader policies encouraging education-industry alliances. Constraining forces such as lack of funding, poorly developed HR policies and workforce casualisation raise concerns about the long-term viability of TPI schemes.

The research question this study set out to address is: In what ways may TPI contribute to the development of individual and organisational capacities? A relativist-

constructivist paradigm was applied to a mixed-methodological framework to explore HE, and VET business disciplines managers, and industry managers' views about the value of TPI schemes, and the benefits and challenges of implementing such initiatives. The theoretical framework employed in the study was drawn from situated theories of workplace learning.

This thesis should be of interest to teachers, education managers, senior university management, managers in industry, government policy makers, industry associations and professional/accrediting bodies, as each of these is potentially influenced/impacted by the outcomes of TPI initiatives.

The thesis contributes to the research question by revealing several issues, including the need to expand academia-industry partnerships, which would strengthen the workplace proficiency of teachers in HE and VET. The findings from this study indicate that there is considerable goodwill from both academia and industry to engage with each other, as each can see benefits from TPI initiatives. However, there are also a considerable number of challenges that make it difficult in practice, for such engagements to flourish, including issues such as: funding, the setting of goals and objectives, and the evaluation of TPI outcomes.

This thesis contributes to the field of workplace learning and capacity building by proposing a number of recommendations to strengthen education-industry alliances through TPI initiatives, including; policy changes; the provision of dedicated funding for sustainable TPI schemes; and the development of a national register of HE, VET, and industry partners.

Student Declaration

I, Annamarie Schüller, declare that the PhD thesis entitled

Workplaces as sights (sites) for learning:

An investigation of the value of teacher industry placements

is no more than 80,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University's Higher Degree by Research Policy and Procedures.

Signature:

Date: 11 March 2021

All research procedures reported in the thesis were approved by Victoria University Ethics Application No. HRE14-305.

Signature:

Date: 11 March 2021

Dedications

To my family

and

in fond memory of my dear parents

Josef and Jacqueline Schüller

and my friend

Kaliope (Poppy) Rohan

~ ♦ ~

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I owe my gratitude to a number of people, but in particular, two individuals stand out for their contribution towards my completion of this thesis.

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I owe a deep gratitude to the managers in HE, VET and industry who took part in my research by sending me completed surveys. A special thanks goes to those who also volunteered to be interviewed. This study would not have been possible without their valued contributions. I am also grateful to the members of the Faculty panel who reviewed my progression and provided helpful and constructive feedback. Finally, but not least, I thank Dr Gabriella Pretto for her comments and suggestions regarding the methodology and quantitative analysis chapters; Dr Segu Zuhair for his wisdom on the statistical aspects of my thesis; and Dr Roberto Bergami for being a critical friend, providing constructive feedback on my writing.

List of Publications

Schüller, A., & Bergami, R. (2020). Teacher industry placement in Australia: Voices from vocational education and training managers. *Journal of Vocational, Adult and Continuing Education and Training*, 3(1), 43-66.

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Abbreviated Terms

AQF: Australian Qualifications Framework

ASQA: Australian Skills Quality Authority

AUQA: Australian Universities Quality Agency

CBT: Competency Based Training

HE: Higher Education

NTP: National Training Packages

RPL: Recognition of Prior Learning VET: Vocational Education and Training

RTO: Registered Training Organisation

TAFE: Technical and Further Education

TPI: Teacher Placement in Industry

VET: Vocational Education and Training

Chapter 1: Introduction and Background

“Educators need a diverse range of pedagogical practices partnered with networking, relationship building, research and commercially savvy innovation skills. The ability to adapt, to learn, to reflect and be creative is critical for educators to keep pace with a world where skills and knowledge are rapidly becoming redundant ... continuing professional development (CPD) is essential to supporting ... educators [to] maintain high quality pedagogic and industry practice.”

(TAFE Development Centre, 2011, p. 5)

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The above statement encapsulates the focus of this thesis which draws together the findings of this research, comprising an exploratory study on the value that Higher Education (HE) Vocational Education and Training (VET) and enterprise managers place on teacher placement in industry (TPI) initiatives. TPI is defined as a “voluntary predetermined period of time spent by the VET [or HE] teacher working *in situ* at a host firm, to undertake previously agreed to tasks” (Schüller & Bergami, 2012, p. 31). TPI is a form of continuing professional development (CPD)¹ that enables teachers to “update skills and knowledge that address the most recent changes in industry” (Harris et al., 2001, p. 89). This exploratory study was undertaken in the context of workplace learning and teacher CPD, with the focus on the perceptual value of TPI by education managers in business studies in the Australian HE/VET sectors, and managers in private enterprise.

Chapter Overview

To begin, a synopsis of the Australian education system is presented to provide a context for the research, followed by an account of the researcher’s personal professional position in relation to the research. Next, relevant HE and VET policy aspects are

¹ The terms continuing professional development (CPD) and professional development (PD) are used interchangeably in this thesis and are given the same meaning.

discussed, in the context of workforce capacity building and CPD for educators². The notion of CPD, focusing on TPI is explored next, highlighting the benefits and tensions between policy and practices. The aims and objectives of the research are presented, together with the research questions guiding it, before outlining the structure of the thesis.

Synopsis of Australia's Education System

With a population of approximately 25.6 million (Australian Bureau of Statistics, 2020), Australia may be considered very fortunate in terms of the high number of tertiary institutions it has. Australia has a total of 43 universities, including five 'dual sector' institutions offering both HE and VET qualifications (Study Australia, 2020). Despite a recent downward trend in international rankings, Australian universities have been traditionally regarded as amongst some of the best in the world (Collier, 2017; Noonan, 2007), and have been widely recognised as significant providers of education within most professional and academic domains (Ledgar, 1996). However, the perspective on Australian education has recently shifted, resulting from the changing nature of work, and with it, the changing "conceptions of knowledge, skills and learning" (Chappell, 2004, p. 1). This presents a challenge for educational institutions, as they strive to provide education relevant to ever-changing workplace demands for new knowledge and skills.

The complexities of Australia's education system are manifested through shared forms of governance within a political system historically shaped by federalism. Australia has both a national and state system of funding of private, state, and religious schools, and this is mirrored by a similar system in the tertiary sector which comprises the HE and VET system. Notwithstanding the situation of a broad national framework for education, it is recognised that there are differences between the individual states and territories.

² The terms teacher, academic and educator are used interchangeably in this these and are given the same meaning.

Australia’s post-secondary education sector traditionally developed through two distinct VET and HE sectors, yet for practical reasons, influenced by social, economic and labour market shifts since the 1990s (Carnegie, 2001; Norton, 2012), changes in education policy have led to a blurring of the VET-HE binary divide through the growth of dual-sector institutions, and the opening of pathways between VET and HE (Carnegie, 2001; Keating, 2003; Smith & Keating, 2003; Wheelahan, Moodie, Billett, & Kelly, 2009) . as illustrated in Figure 1.1. These pathways are still relevant today.

Figure 1.1: Australian Qualifications Framework, sectoral qualifications linkages – horizontal and vertical pathways (Carnegie, 2000, p. 14)

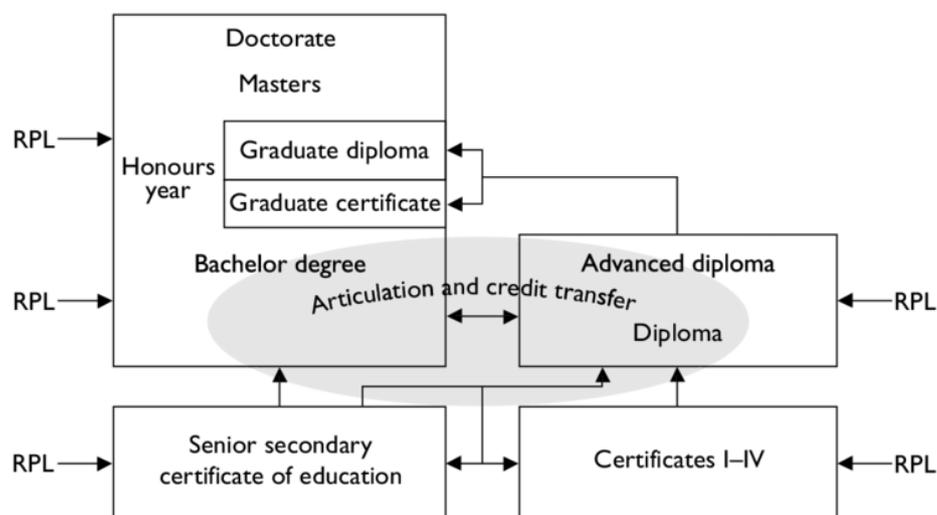


Figure 1.1 shows the relationship between different levels of the Australian Qualifications Framework and the nature of the qualifications awarded in terms of articulation and credit transfer activity. The level of vertical and horizontal articulation and credit transfer arrangements between award-granting HE institutions and public and private VET providers has expanded considerably over the past two decades, and this is a reflection of the “increasing readiness to accept into courses students with a variety of background learning experiences” (Eltis, 2002, p. 83). Articulation pathways also include recognition of prior learning (RPL), that is, a system based upon a formal application and assessment

process to identify an individual's prior learning acquired through formal or informal means, to subsequently determine what credit transfer outcomes may apply.

VET is largely distinguished from the HE sector by its National Training Packages (NTPs) and competency-based training (CBT) framework, a system that is largely industry-led. Notwithstanding federal government efforts to improve articulation arrangements in the tertiary sector (see Bradley et al., 2008), various national and state policy factors are embodied in organisational barriers across the HE-VET divide, making the goal of integration and seamlessness between the two somewhat problematic. These barriers include differing regulations, pedagogies, course standards and qualifications (Carnegie, 2000; Fowler, 2017a).

VET forms a significant part of Australia's tertiary education system, with its contribution to the economy having long been acknowledged through its focus on workplace learning and skills development (Department of Education and Early Childhood Development, 2013b; Harris et al., 1995; Marginson, 1997). It is especially recognised for the provision of Certificate, Diploma and Advanced Diploma levels of occupational training.

The VET market is extremely diverse, comprising a range of providers that offer nationally recognised VET qualifications. These include community education providers, secondary schools, private training organisations, industry enterprises, some universities, public technical and further education (TAFE) institutions and privately registered training organisations (RTOs) providers. There are 59 government-funded TAFE institutions and there were approximately 4000 RTOs in 2020 in Australia (Australian Skills Quality Authority, 2020b). In general, private RTOs have smaller student

enrolment numbers than their TAFE counterparts, and they do not necessarily offer the full range of courses available in the VET system.

Responsibility for VET in Australia resides with the States and Territories, but with a national system that includes representation from peak industry bodies who advocate and significantly influence VET policy and practice. Industry's power to drive the VET agenda is not without contention, as its influence is frequently seen to be in conflict with local "industry and individual employer views" (Guthrie, 2018, p. 1) regarding what type of training is desired.

In an effort to create a more nationally unified tertiary education sector, one that could better respond to industry's needs in the face of increasing global competition, substantial and controversial reforms were introduced. These began with the Dawkins-led era of HE reforms in the 1980s, and the subsequent opening up of the VET sector to private RTOs. These are the sectors in which the research is conducted.

Background to the Study

The genesis of this exploratory study stems from my former career as a VET teacher and my lived experiences with TPI initiatives. I chose to focus on business disciplines in the HE and VET sectors because these fields of study are relevant to any commercial endeavour, regardless of industry sectors. For 20 years, I taught across a wide range of business programs from Certificate II to Advanced Diploma level qualifications. I also did some part-time teaching in the HE sector in the business and education disciplines. During my time in VET, I was fortunate enough to participate in three TPI programs as a form of CPD. It was through these experiences that I came to the realisation of a gap that can easily arise between what teachers know and what industry's expectations are. This led me into academic research in this area. My working trajectory in VET coincided with

a critical epoch in this sector, for this was a time of significant policy changes, as mentioned earlier. I had no doubt, from my experience during this period, that the creation of ‘managed competition’ through the government subsidisation of private RTOs, designed to ‘compete’ with publicly funded TAFE, had a deleterious impact on these institutions, their staff and, consequently, the quality of teaching, and ultimately to the detriment of students. This context makes CPD even more important.

Australian Education Policy

It is commonly accepted that education policy does not operate in isolation, and the constant ‘reforms’ in Australia’s tertiary education system over recent decades, particularly within the VET sector, have had a profound impact on teaching and learning experiences with, at times, unintended consequences. The opening up of the VET market to private training providers led to the demise of TAFE institutions, as they were challenged to compete in an environment of substantially reduced public funding, alongside private RTOs that operated under lower cost structures (Malloch & Cairns, 2014; The Scan, 2014; Trounson, 2014; Wheelahan, 2012; Workman, 2014), whilst concurrently receiving government subsidies.

The substantial reforms across HE and VET over the past two, or more decades, reflect a dramatic ideological shift in the way education has been perceived by policy makers (Committee for Economic Development of Australia, 2014). In the university sector, the federal government, driven largely by a neo-liberal ideology, has pursued a process of “marketisation of public universities and the commodification of HE learning” (Rea, 2016, p. 9), at the same time, it has consistently withdrawn funding to HE. The result of this was that educational institutions were forced to turn themselves into quasi-private enterprises, due to the need to derive revenue from external sources, to offset the

reduction in government funding. The external sources of funding were realised primarily through the enrolment of international students onshore. This was the beginning of mass education in Australia, as “universities are now conceived as corporations providing a private good for individual consumers” (Star, 2007, p. 144). Thus, education policy has become increasingly governed by economic considerations – these being the means by which it is now measured. The ‘quasi-Schumpeterian’³ values espoused by contemporary education policy-makers are notable for promoting the conditions that support increased productivity, efficiency and innovation for economic gain (Ball, 2007; McLean, 2010). As such, tertiary education policy is both controversial and contested because it is being produced within “sites of discursive struggle between competing but unequal interests” (Thomas, 2005, p. 3), and is being unsettled by the insistences of dominant voices (Gale, 1999). An example of this is seen by the increasing power of key industry bodies over the content of VET national curriculum through NTPs, which is further discussed later in this chapter.

Australian businesses are constantly challenged by demands for greater competition whilst facing the expanding complexities of operating in an inter-connected world. In parallel with this continual tension, contemporary political discourses increasingly draw attention to the importance of HE and VET educators needing to have the requisite knowledge and capabilities to adopt more learner and work-centred pedagogies. As such, workforce development is an important area of public policy, since it plays a critical role in supporting the commercial demands of industry, as it seeks to maximise human capital

³ This term draws from Austrian economist Joseph Schumpeter’s (1883-1950) theory that innovation and ‘creative destruction’ of products, and socio-political-economic systems/processes are the driving force behind all economic growth. Such views have been revived within contemporary neoliberal policy discourses. An example of this being the substantial system-wide changes within VET and HE over the past three decades in response to the forces of globalisation, increasing competition, and change.

to sustain economic and social growth (Farrell & Fenwick, 2007b; Schmied, 2010), and central to the achievements of these objectives is the role performed by HE and VET.

Educators are widely acknowledged as critical players in preparing learners for work, and in supporting industry's demands for employment-ready graduates. Whilst this is an important economic and societal concern, it is a challenging endeavour given the rapid pace of change in business environments, new technologies, job casualisation and an ageing workforce that have markedly shifted constructions of knowledge and skill. These changes have brought greater focus upon the world of work and raised awareness of workplaces as "significant sites for learning" (Chappell, 2004, p. 1). Against this shifting background comes an increasing demand for investment in workforce development to avoid professional obsolescence.

HE and VET management are expected to support staff CPD to build and maintain quality standards and teacher industry currency (Clayton et al., 2013; Mitchell, 2011). Industry currency has been defined as "having up-to-date skills, knowledge and experience in a particular industry" (Clayton et al., 2011, p. 3). Whilst industry currency is a registration compliance requirement for all VET operators (Clayton et al., 2011), it is also tantamount to building VET teacher capacities, and to supporting broader economic and social objectives under the national 'productivity agenda' (Commonwealth of Australia, 2008). The capability of VET educators to deliver high quality teaching under the framework of NTPs and CBT standards remains a subject of strong debate (Harris, 2015; Hodge, 2014, 2016). Drawing upon studies by Hodge (2014), Harris (2015) articulates the "little faith" (p.26) held by VET educators in the Certificate IV in Training and Assessment, the minimum teaching and assessment qualification required for teaching in the VET sector. Ongoing calls for CPD and the need for "a more appropriate

range of qualifications for VET teachers and trainers, rather than a ‘one-size-fits-all’ approach” (p. 26) are underscored by the “clear need ... for ongoing professional development and experience, both formal and informal, following the completion of the required Certificate IV” (p. 29). Indeed, according to Tyler & Dymock (2017) the capability framework proposed by Innovation & Business Skills Australia, recommends “a professional development support approach, rather than the provision of yet more qualifications” (p. 12).

CPD comprises many different forms that aim to extend educators’ knowledge and improve teaching and learning practices, yet, paradoxically, it is an area typically manifested through a narrowly focused neo-liberal agenda, regarded as both a policy solution and problem in Australia (Mockler, 2013). VET educators are required to maintain their knowledge of current industry practices relevant to the disciplines they teach across different occupational fields (Misko, 1999), yet, curiously, such expectations are difficult to achieve in a policy environment of constant funding cutbacks and resource constraints. Nevertheless, as calls for stronger links between education and industry increase (Communiqué of the Conference of European Ministers Responsible for Higher Education, 2009), strategies for building teacher vocational currency is an issue of growing national and international importance (Guthrie, 2010). From both macro and micro perspectives, these matters carry broader implications for stakeholders including the government, employers, employees, students, and the rising ranks of the unemployed, particularly in the youth sector (Brotherhood of St. Laurence, 2015).

There is growing importance of workplace learning and CPD in VET (Clayton, 2012; Guthrie, 2010) and because of the trans-disciplinary nature of workplace learning, it is important to acknowledge that CPD has equal significance across HE and VET

environments. CPD is a critical component in maintaining a productive and skilled workforce (Innovation and Business Skills Australia 2010a).

The Role of Tertiary Education in the Knowledge Economy

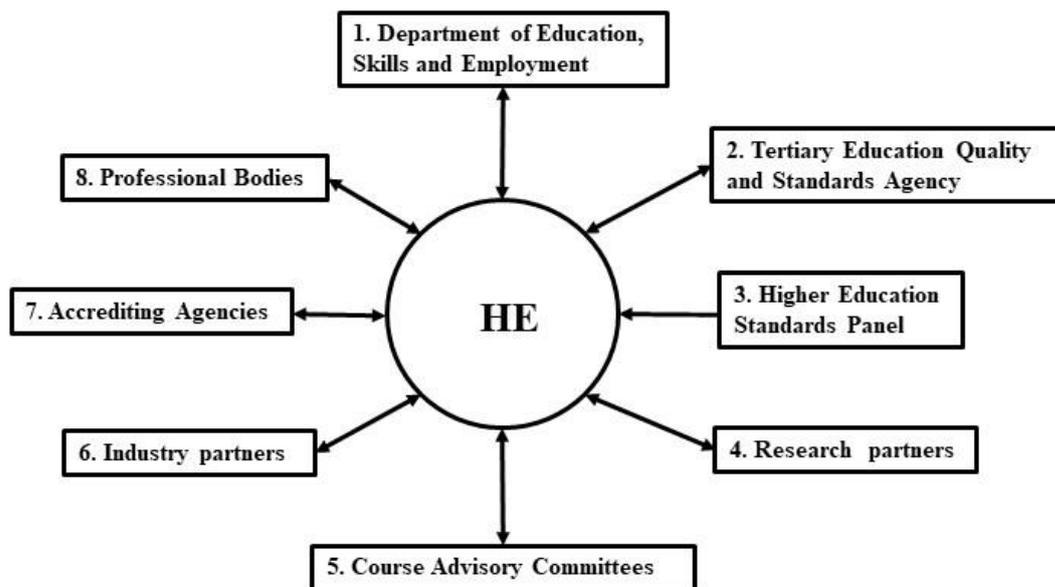
HE and VET educators have long been recognised as a vital resource for the transfer of new knowledge, and this critical dimension of their work (Smith, 2001) is closely aligned to “national human capital and workforce development agendas” (Saunders, 2012, p. 184). Indeed, the role of HE and VET is fundamental to sustaining economic and social development; improved living standards; workforce participation, and the development of individual and organisational capacities to meet the challenges of a 21st century world (Cedefop, 2017; Committee for Economic Development Australia, 2015, 2016; Salmi, 2017). Education supports the creation and distribution of knowledge and skills through basic and applied research, as well as through the training of a “qualified and adaptable labor [sic] force, including ... scientists, professionals, technicians, teachers ... future government, civil service, and business leaders” (Salmi, 2017, p. 32). These roles reflect the dominant contemporary “global capitalist” (Lynch & Smith, 2005, p. 132) understanding of the function of tertiary education, that is, to build “a knowledge-based economy” (Farrell & Fenwick, 2007a, p. 24).

The role and processes of HE are quite distinct to those of VET. Despite some variations across countries and differences between public and private institutions, a common feature of HE lies in the degree of academic freedom enjoyed in relation to the type of research pursued (within the confines of institutional parameters); and discretion over curriculum content (Huber, 2016). Australian universities “automatically have the right to accredit their own courses. University academic boards approve their university’s courses, within a framework established by government regulation” (Norton &

Cherastidtham, 2018, p. 14) . Self-accreditation allows academic freedom and the ability to introduce new materials into courses without prior government agency approval. University course standards are quality assured by the independent federal government Tertiary Education Quality and Standards Agency (TEQSA). The economic position of the tertiary sector is important given the goals for collaboration between education and industry/business and the development of courses. The relative ease by which Universities can make curriculum changes opens up a dialogue for academia-industry engagement that can promote individual and organisational capacity building, through activities such as TPI schemes, resulting in curriculum enhancement and more ‘work ready’ graduates.

Due to the specific role of universities in education, they interact with different key agencies to those of the VET sector. An overview of the key external agencies for the HE sector is shown at Figure 1.2, and this indicates the key actors in potential joint programs involving TPI activities.

Figure 1.2: HE relationships with key agencies



(own elaboration)

In the context of this section of the thesis, the student does not feature as a stakeholder because their role is comparatively limited vis-à-vis the other players who influence and shape the HE environment. Students are consumers of HE and VET services, however, their ability to influence and shape this environment is rather limited, and is not the focus of this thesis.

VET plays a critical role in supporting industry through a significant and challenging period of economic restructure (Industry Skills Councils, 2012), resulting from the transitioning nature of skilled labour across industry sectors, and new skills requirements that contradict traditional silo career structures. Consequently, there is an urgent need for greater flexibility and innovation in education and training, otherwise this “will result in loss of valuable human capital” (Service Skills Australia, 2010, p. 2). Therefore, stronger linkages between industry, HE and VET, to build productivity and develop skills, including higher order “communicative, interactive and cognitive capabilities” (Service Skills Australia, 2010, p. 37) are required. This necessitates a holistic approach to CPD between education and industry, one that enables the cross-fertilisation of ideas and the transfer and sharing of knowledge. TPI activities, by their very nature, are well poised to meet these requirements. Importantly, TPI activities underscore the importance of lifelong learning as

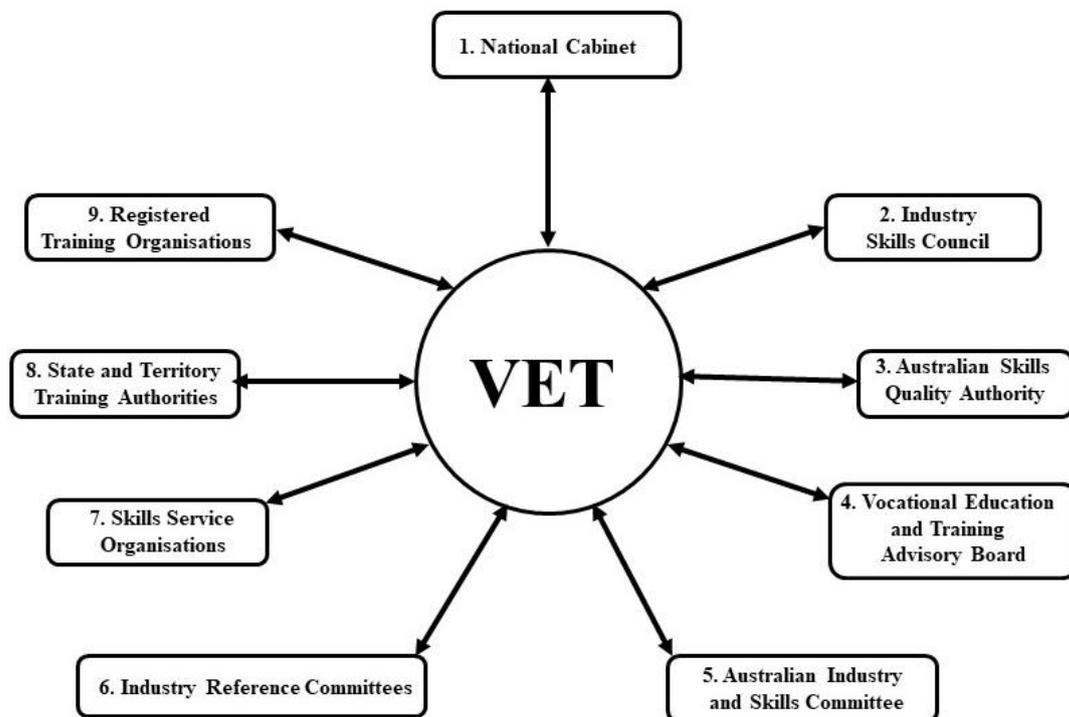
The need to learn across and through working life is premised upon sustaining the ability to respond to the (1) changing patterns of employment in occupations. (2) requirements for occupational practice. (3) the specific requirements of particular workplaces. (4) evolving work practices and (5) changing compositions of workforces. (Billett & Noble, 2017a, p. 207)

Skills formation sits at the heart of VET policy (Industry Skills Councils, 2012), with wide support for strengthening industry linkages to address labour market needs. This is

demonstrated through the various forms of politicking by different groups, within an increasingly “neoliberal policy environment [that is] particularly susceptible to employers’ interest and their associations’ voices” (Sheldon & Thornthwaite, 2005, p. 411). Metaphorically speaking, Harris, (2015) likens the VET sector to “the elephant in the proverbial blind person story where various aspects of VET are touched by various bodies, none of which has the jurisdiction to handle the whole beast or understand what the whole animal looks like” (p. 28). This perspective materialises when considering the many players involved in VET policy development.

VET policy is substantially influenced by “intense employer association advocacy and involvement” (Sheldon & Thornthwaite, 2005), enabling these bodies to play an important role in shaping the Australian VET sector. Figure 1.3 shows key players who have significant influence over VET policy and direction.

Figure 1.3: VET relationships with key agencies



(own elaboration)

The range of key VET players shown in Figure 1.3 accentuates the industry-led nature of the Australian VET system (Cowan, 2002), which was modelled on a similar one developed in the United Kingdom during the 1980s (Eraut, 1994) . I note that this grouping is not exhaustive, as “wide-reaching consultation has been a feature of policy development, implementation and evaluation in both sectors” (Mills, 2016), p. 2) . Curiously, what appears to be omitted from this industry-led framework is representation from teachers and their managers. Smith (2005) notes that many VET teachers felt excluded from policy developments of the 1990s, as evidenced by key stakeholder documents that “frequently failed to mention teachers as an important part of VET, focusing instead on employers, providers and learners as key players” (pp. 324-343). TPI schemes have the potential to run counter to the diminution of the teacher’s importance and role identified above. Indeed, one of the results of TPI schemes is to de-marginalise the teacher, making them centrepiece in the acquisition and dissemination of current knowledge relevant to industry practices to students, to produce more ‘work-ready’ graduates. However, in practice, TPI schemes will only be successful where they receive strong management support within the environment in which such schemes can operate, considering the various stakeholders shown in Figure 1.3. It is the focus of this thesis, to establish the value placed on TPI activities by education and industry managers.

From the government’s perspective, the weight of industry’s dominance over VET is underpinned by a sense of urgency in “developing qualifications that can deliver skills to the workforce” (Commonwealth of Australia, 2012a, p. 22), and in contributing to economic growth and prosperity through increased workforce participation (Australian Government, 2014; COAG Reform Council, 2010; Committee for Economic Development Australia, 2016). Over time, there have been ongoing concerns regarding

the quality of VET teaching and its impact upon educational outcomes and national skills building (O'Meara, 2011). Harris (2015) contends that the quality of VET has been considerably weakened by the “shift to an industry-led system, the introduction of an open training market and the adoption of competency-based frameworks” (p. 29). He further argues that although the quality of teaching is not “the sole factor leading to quality glitches ... it is ... in many respects ... the major factor” (p. 30). Consequently, there is an urgent need for “quality VET teachers and trainers who, as well as their occupational expertise, can creatively interpret Training Packages ... engage ... learners... and assess without defaulting to ticks and flicks on standard checklists (Harris, 2015, p. 29).

There is strong evidence that the reforms to VET (particularly in the State of Victoria), have had a substantially negative impact upon the sector, and on its capacity to deliver quality teaching and learning experiences (Hare, 2014; Malloch & Cairns, 2014; Ross, 2014a, 2014b; The Scan, 2014; Trounson, 2014; Workman, 2014). Whilst a detailed discussion of the above falls outside the scope of this thesis, it is important to acknowledge the progressive “dumbing down of the teaching VET workforce” (Harris, 2015, p. 30).

Although Australian educational reform agendas have traditionally held a longer-term view (O'Meara, 2011), this has shifted to a shorter-term perspective following substantial system-wide changes in VET (as well as HE) over time Ball, 2007; Currie & Newson, 1998; Foster, Delaney, Bateman, & Dyson, 2007) . It is alarming that HE and VET discourses point to a fractured system (Myers, 2012) that is “losing ground against a number of its competitor countries” (O'Meara, 2011, p. 424).

Constant waves of reform have led to a ‘top down’ centralised style of management, with a culture of performativity (Ball, 2006) and increased regulation through quality

assurance systems and regulatory arrangements within them (O'Meara, 2011). According to Bergami (2019), in universities, there is an “unhealthy focus on accountability and performativity at times under the aegis of ‘quality improvement’, where a ‘tick the box’ mentality prevails, because this provides ‘compliance evidence’” (p. 38). The intensity of academic work has increased “because of the need to fully account for the use of time due to efficiency related accountability measures” (Kenny, 2008, p. 12). Indeed, features of performativity are ever present in official discourses, as noted by Hare (2014). For example, in analysing a 19 page strategic planning guideline for the public VET sector and phrases within it, this author found its intent revealing, for what it highlighted were “matters that count most for the government in VET” (Hare, 2014). To elaborate, phrases such as “financial” [appearing 50 times], ... “performance” [appearing 22 times], “corporate intent” and “asset” [appearing 14 times] and monitoring” [appearing 11 times], was compared with the phrases “student”, “learning”; “employment”, “access”, “industry”, “disadvantaged and “communities” which were not present in the document at all (Hare, 2014). The paradox is startling when considering what Wheelahan and Moodie (2011) described as the key role VET is expected to perform in terms of mediating change processes that support “workforce participation, productivity, skills and social inclusion” (p. 14). The ‘texts’ noted by Hare (2004) point to a glaring contradiction between policy and strategic planning that appears to run counter to the broader goals of HE and VET. The dwindling of funds, coupled with management focus on performativity and increased teacher workloads, place increasing burdens on educational institutions. I argue that budgetary constraints are one of the most significant negative factors for TPI initiatives, as any activity has an economic cost and TPI initiatives will be difficult to realise if left unfunded.

I acknowledge that there are other forms of CPD, such as apprenticeships, internships and practicum that have historically been a common practice for entry to professions. However, these have a different approach, purpose, and outcomes to TPI initiatives, consequently, I have not provided their history. Apprenticeships are typically longer-term and very prescriptive in their activities and outcomes, and are aimed at novices. TPI initiatives involve teachers who cannot be regarded as novices, because they would enter the host organisation with a pre-existing body of knowledge relevant to their area of teaching specialisation. The apprentice, as a novice in contrast, must learn from the beginning. Internships, commonly referred to in the business disciplines as ‘work integrated learning’ (WIL) are commonly made available to students as part of a compulsory or elective element in their course of study. There are similarities between TPI and WIL insofar as both require an individual to conduct specified tasks and activities *in situ* at a host organisation. However, the level of engagement differs. Like the apprentice, the student may possess some knowledge about the area in which they will be performing within the host organisation, however it is unlikely that they will possess mastery of knowledge in the area in which they seek to gain experience. The teacher *in situ*, through TPI initiatives, has the added advantage of presumed greater knowledge that can be shared with the host organisation employees, something the student is unlikely to be able to do. Additionally, because of the teacher’s prior knowledge, they are more likely to be able to engage in meaningful research and project work, on a more longer-term and recurring basis than the student on a short-term once-only WIL placement. Similar comments can be made in relation to a practicum, that resembles an internship, with the main difference being that the practicum focuses on observation over work experience.

Unless the business course of study is one that is subject to professional accreditation, a practicum is not typical of a business program.

The Role of Continuing Professional Development

Concerns over teacher obsolescence (Clayton et al., 2013) coupled with industry's demands for greater quality and relevance in education (Gonczi, 1998; Smith & Kemmis, 2010) indicate a need for teacher CPD initiatives, that have the capacity to positively influence the quality of teaching and learning, such as TPI that provide *in situ* experiences. However, the unfortunate reality is that there are limited opportunities for such initiatives (Clayton, 2012), as competing institutional urgencies and an ever-increasing scarcity of funds effectively push CPD considerations to lower levels of priority for managers, and often "industry currency activities regarded as legitimate by VET managers and auditors appear to offer limited developmental opportunities for VET teachers" (Schmidt, 2019, p. 1).

It is generally accepted that many VET educators have fragmented histories of industry experience across various occupational settings, prior to embarking into their teaching careers. For HE, the general criticism has been their lack of industry exposure prior to entering academia. This situation does not augur well in the context of contemporary education policy, that has long sought to improve the relevance of education, to align it with industry's needs (Berggren & Soderlund, 2011; Burke, 1998; Department of Education and Early Childhood Development, 2013a; Hoeckel et al., 2008; Industry Task Force on Leadership and Management Skills, 1995). To address this tension, it is clear that more effort is required to support CPD for HE and VET educators, particularly through TPI schemes that foster industry-education alliances to strengthen workplace learning and organisational capacities. Such alliances should identify

industry's emerging needs for knowledge and skills and, through TPI activities, convert these into instructional content (Schmied, 2010) to enhance the curriculum.

Teacher Placements in Industry

There is no national policy that deals specifically with TPI activities in the HE and VET sectors in Australia, to date. Prior attempts, such as the 'Teacher Release to Industry Program' (TRIP) of the 1990s (Ball et al., 1998; Perry & Ball, 1998), were limited to primary and secondary school teachers. Other attempts by the federal government to foster academia-industry relationships have been limited in their application. As an example, the 'Researchers into Business' (Enterprise Connect, 2009) program, offered through a co-funded partnership between HE and commercial entities, had a narrower scope, limited to project specific applied research. Because of its very nature, this scheme cannot be regarded as a TPI activity.

Research on TPI activities is not new, spanning over three decades. However, the research conducted to date has focused on the benefits and challenges of TPI schemes from the educator's perspective. Studies of TPI in various nations including the Czech Republic, Malaysia, Pakistan, South Africa and the UK (Bergami, Schüller, & Cheok, 2011; Bergami, Schüller, & Vojtko, 2011; Bergami, Schüller, & Zafar, 2013; Brown & Chalmers, 1990; Ireland, Golden, & Spielhofer, 2002; Van der Bijl & Taylor, 2016; 2018; 2019) have all focused on analysing varying aspects of TPI schemes from the lens of educators. These studies are quite different from the focus of this thesis which is on the perception that education institution and industry managers have on the value of TPI schemes. Despite an extensive literature search in all data bases available via Victoria University's library services, as well as Google Scholar, no study similar to the one conducted in this thesis could be located. Internationally, TPI has been the focus of research in recent decades, although

this has not been as detailed or comprehensive as the study conducted in this thesis.

Crystal (1994) briefly reported on a small-scale, specific purpose funded ten-month staff teacher placement program for a vocationally oriented HE institution. This was an unusual arrangement as it relied not only on teachers being placed *in situ* with a host organisation, but also requiring the host partners to spend time *in situ* in the university. The findings from this experimental program were that teachers felt they “made real gains from their placement experience” (p. 34), but there was little in the way of reciprocal participation from private enterprise, due to “lack of time and pressure of work” (p. 34). Whilst these findings are relevant to the notion of TPI overall, noting the benefits for teachers, the focus is quite different to that of this thesis as the evaluation of this program was from the teachers’ perspective, with no reference to either education or private enterprise managers.

Finch (1999) focused on the broader issue of PD activities for teachers in USA high schools. This article takes a macro view, outlining a range of possible PD activities including “building powerful alliances between schools, the workplace, and the community” (p. 12) as a means by which reforms can be implemented to improve the educational experience for students. This author refers to the example of the Business-Education Compact (BEC), in Portland (Oregon, USA), a “not-for-profit organisation which connects educators and students to the workplace (Pribbenow & Sargent, 1998, p. 61). The BEC business model relies on funding from membership, grants, philanthropic contributions, and contracted services. Essentially, the BEC is a broker between the schools and workplaces, connecting these in order to facilitate workplace learning that is relevant to the particular needs of a teacher or a student. Consequently, the scope of BEC is limited and its geographical impact restricted to a particular area. Both Finch’s (1999)

work and that of Pribbenow & Sargent (1998), whilst somewhat relevant, are of limited use to the development of this thesis.

Sargent (2000) provided an educational brief focusing on the linking of educators' professional development to workplace/community learning experiences (WCL) in the USA post-secondary education environment. This author argues that research has shown that

educators returning from WCL experiences have indicated that seeing theories and principles in context enables them to make teaching richer and learning more relevant for students. With few exceptions, they believed their teaching is qualitatively and quantitatively better because of their participation in WCL. (p. 4)

Sargent (2000) concludes that “in order to be effective, professional development must be grounded in practical applications with direct links to meeting the immediate needs of the participant” (p. 7). This brief, however, is rather descriptive, taking a macro approach that lacks in-depth analysis of the problem, offering little in the way of solutions or recommendations that would improve the current situation, other than to claim that “models of workplace/community learning provide this much needed alternative to the status quo” (p. 7), without further expanding on this. Sargent (2000) provides a list of potential outcomes that may be derived from WCL experiences, however, these are not discussed to any great extent within the paper. This paper concentrates on teachers' CPD and its potential outcomes, consequently, whilst relevant, it is of limited use in the development of this thesis as it concentrates on managers' views of TPI, a different lens to that of teachers.

Andersson and Köpsén (2015) focused only on the experiences of Swedish VET teachers based on data obtained from the Swedish National Agency of Education. This study was broad-based and did not specifically focus on business disciplines, rather, it

focused “on the teacher’s professional identity in terms of the vocational subject and the work-life practice” (p. 19).

Hoekstra and Crocker (2015) considered e-portfolios in relation to enhancing professional learning of vocational educators in Western Canada. This study focused on an analysis of e-portfolios and how they may contribute to professional learning of VET teachers. The finding “suggests that instructor professional learning ... is not static ... the e-portfolio approach may not be sufficient to address instructors’ learning needs” (p. 369).

van der Klink and Streumer (2017) considered the broad issue of PD in the context of VET teacher lifelong learning in the Netherlands, finding that

the alignment of professional development plans with the strategic goals of the school is weak ... The limited available research findings point at rather restricted professional development practices and are indicative of rather low levels of investments in this area. (p. 133)

Although the work of these authors is restricted to the VET sector alone, their findings are relevant to parts of this thesis as strategic goals and investments are important issues from a management perspective, which is the focus of this thesis.

Finally, (Van der Bijl & Taylor, 2016) report on the findings of a project on industry workplace experience of VET teachers in South Africa. Although limited to the VET sector alone, this study also has applications to relevant parts of this thesis, as these authors argue that TPI is

primarily a labour relations matter with outcomes linked to human resource management of staff ... [with] issues such as incentive and replacement budgets, leave policies, health and safety issues and legal issues that could arise when a person from one place of employment is productively used by another. ... A key role in the success of lecturer industry placement is the role played by college management in facilitating lecturer placement, and incorporating this into human resource management processes and academic functions. (p. 104)

Indeed, HR considerations are part of management functions and these align with the focus of this thesis and these considerations will be explored in later chapters.

The Benefits of TPI

Although it is recognised there are challenges in the implementation of TPI initiatives, due to resource and funding implications, these activities are nevertheless regarded as having value, as the literature indicates. The multiple benefits and opportunities of TPI initiatives include:

- Enabling teachers to use their specialist knowledge in a consulting role to enhance industry processes (Ireland et al., 2002);
- Updating teacher industry and enhancing the curriculum (Schüller, 2013);
- Teachers' renewed confidence and enthusiasm from their *in situ* experience, leading to improved pedagogical practices; and enhanced professional identity (Haigh, 1997; Ireland et al., 2002; Schüller, 2013);
- Enabling opportunities for mutually beneficial projects between the host firm and the educational institution (Ireland et al., 2002; Klein, 2001); and
- Providing the host firm with access to a ready pool of graduate recruits (Brown & Chalmers, 1990).

TPI Policy and Practice: A Conflicting Duo

There is little information about TPI schemes readily available in the public domain (Schüller, 2011a). Funding for TPI is largely drawn from VET institutes' professional development budget (Schüller, 2011b), and given the lack of official records for TPI, there does not appear to be much concern about how these public funds are used.

Although broad support for TPI is acknowledged in the literature and through government policy frameworks (TAFE Development Centre, 2009), some of these

schemes are not funded (Department of Education, 2019). Discourses openly encourage education-industry partnerships to build knowledge capital (TAFE Development Centre, 2009), however, previous research into VET teachers' TPI experiences highlighted various tensions between policies and their implementation. These include (Schüller, 2013): using TPI to meet departmental KPI and audit requirements; lack of institutional support and recognition for TPI experiences; weak effort in nurturing meaningful industry partnerships; and a seeming ambivalence from management in their commitment to supporting TPI arrangements. Significantly, other research has noted the nebulous and ill-defined nature of TPI outcomes (Mitchell, 2011). Clearly, in the absence of well-defined TPI goals and objectives, their evaluation becomes considerably weakened, and this highlights policy-making "out on a limb" (Farmer & Rojewski, 2001, p. 179). In other words, notwithstanding the claimed benefits of TPI, support for it does not appear consistent with the findings of empirical studies – therein lies the disjoint.

Aims and Objectives of the Study

To recall, a review of existing literature relating to TPI showed that little, if any, appears to be known about HE, VET and industry managers' views and values of TPI initiatives as a form of CPD. My research aimed to fill this gap in current knowledge, and to explore how TPI may contribute to more expansive forms of learning. The underlying premise I make, is that education institution and private enterprise investment in TPI schemes creates spaces for the sharing of skills, workplace knowledge and ideas. Additionally, TPI carries the potential to forge mutually beneficial projects that contribute to capacity building across HE-VET-Industry workplaces. Such forms of engagement may: help bridge the gap between pedagogy and contemporary business practices; stimulate discussion about what industry knowledge and skills are required; and promote

confidence that work-based teaching and learning within HE and VET is current and relevant to industry's needs.

The central question I ask in this exploratory study is: *In what ways may TPI contribute to the development of individual and organisational capacities?* In addressing this question, the inquiry and presentation of the research findings have been guided by the following five subsidiary questions:

1. *Do managers see any value in TPI initiatives?*
2. *What kind of learning may be needed, by whom, and for whom?*
3. *What are the challenges of implementing and supporting TPI activities?*
4. *How might TPI opportunities be improved to provide greater benefits to all stakeholders?*
5. *How might we know that TPI meets individual and organisational goals?*

Theoretical Framework

This thesis has been informed by various socio-cultural perspectives drawn from a wide body of literature within the field of workplace learning. This field addresses many themes, including: workforce and organisational development; innovation; forms of knowledge; knowledge production and transfer; and the development of human and social capital for knowledge-based economies. The predominant underpinning theories used to support this thesis draw from the socially situated nature of workplace learning (Lave & Wenger, 1991; Wenger, 1998b); workplace affordances (Billett, 2001, 2004b, 2010b), the expansive-restrictive continuum (Fuller & Unwin, 2004; Unwin et al., 2007); and activity theory (Cole & Engeström, 1993; Engeström, 1987; Engeström & Sannino, 2010; Kaptelinin, 1996).

Outline of Chapters

A brief outline of the six chapters of the thesis is provided below.

Chapter 2 provides a review of relevant literature from the management and social science areas, to contextualise the background for workplace learning and CPD. A brief history of the development of management science disciplines is provided before focusing on different forms of knowledge work. Theoretical perspectives of workplace learning are provided next. In the context of the national skills and workforce development agenda, HE and VET CPD aspects as they relate to TPI are discussed. Finally, the focus turns to the benefits and limitations of TPI initiatives.

Chapter 3 explains the methodology and research methods adopted for this exploratory study. The underpinning philosophical assumptions are explained, and the theoretical framework described. The research was conducted using a sequential (quan/QUAL) mixed-methods design to gather data from managers of business disciplines in HE and VET, and industry managers, through the distribution of surveys, followed by semi-structured interviews. The range of professional areas were based on the varied range of business disciplines that, by their very nature, are multi-faceted, and range from HR to finance and accounting; ICT; marketing; management; logistics; and procurement⁴ – these are further discussed in Chapters 3 and 4. This approach fitted the theoretical drive of the study that drew from a predominantly constructivist lens. Survey data was analysed using simple statistics and abductive reasoning, and the analysis of data from the semi-structured interviews was supported by the use of selective grounded theory analytic tools, and thematic analysis based on inductive, reflective, and interpretive

⁴ The impact of professional bodies' accreditation was regarded as being outside the scope of this thesis as this focuses on managers' views on the value of TPI initiatives. One reason for this exclusion is that CPD for professional bodies typically allows for participation in a range of activities for one to remain current. These activities usually include attendance to seminars, conferences, networking, and reading industry specific journals. Such endeavours do not typically include, or mandate, TPI-like activities for fulfillment of CPD requirements. Additionally, whilst professional membership may be desirable and may attract a number of benefits, this is not normally a pre-requisite for teaching in the business disciplines.

forms of reasoning. Other matters discussed in this chapter include ethical considerations, and the methods that were used to validate this research.

Chapter 4 presents the analysis and discussion of quantitative data gathered from the surveys distributed to HE, VET, and industry managers. The data is presented systematically using simple statistics, together with a discussion to address the subsidiary research questions.

Chapter 5 provides the analysis and discussion of the semi-structured interviews. This set of data provides a richer and deeper insight into answers to the research questions.

Chapter 6 presents the conclusion to the study, outlining its significance and contribution to knowledge. Limitations of the findings are acknowledged, and a number of recommendations are provided. Finally, areas of possible future research are suggested.

In summary, although calls for greater collaboration between HE, VET and industry are not new (Guthrie & Clayton, Clayton, 2012; 2010; Harris et al., 2001), they remain part of the challenges and reforms necessary to support the needs of educators and the industries they serve, now and into the future.

Chapter 2: Literature Review

“Knowledge work is now a dominant feature of industrializing and post industrial societies.”

(Cortada, 1998, p. vii)

~ ♦ ~

Introduction

The growing interest in workplace learning has implications for HE and VET and their relationship with workplaces, which in turn has contributed to collaborative programs such as TPI

To provide a context for this thesis, I present a review of what I consider relevant literature drawn from a corpus of work in the fields of management and social sciences, with a focus on workplace learning. TPI initiatives are multi-faceted and no one single theoretical approach encompasses all its various aspects. For example, workplace learning includes considerations such as, but not limited to, interpersonal communications, different workplace cultures and attitudes, reciprocal learning through the acquisition and transfer of knowledge/skills for individual and organisational capacity building, business environmental factors, and economic imperatives. Consequently, the discussion in this chapter is presented in a thematic approach, before reaching the conclusion.

Part 1: Background

The growing focus upon workplace learning is grounded within an historical, socio-economic context that spans many decades. Interest in organisational capacity building evolved through various schools of management thought commencing with the classical principles of scientific management, to contemporary views of managing for change and

continuous improvement. Collectively, these varying perspectives continue to influence approaches to the management of people, systems, and processes in the daily performance of workplace activities. I consider this background to be important in the context of my thesis because discourses on knowledge management, such as division of labour, standardisation of processes and specialisation of tasks, have historical roots that remain applicable to skills acquisition and information sharing among participants in a TPI environment.

The principles of scientific management proposed by Frederick Taylor (1911) emphasised the specialisation/standardisation of tasks, the division of labour, and training as critical components of management, marking the beginning of a new discipline. These principles revolutionised production processes, by increasing technical and general efficiencies across all commercial enterprises (Caldari, 2007). Taylor's (1911) ideas concerning the division of labour between those who think (that is, managers) and those who do (that is, workers), have long been sceptically viewed, largely because of social concerns regarding their impact upon individual workers (Caldari, 2007). Henri Fayol (1916) separately developed fourteen principles of administrative management distinguish between technical and managerial skills, summarised as planning; organising; leading; coordinating/staffing; and controlling (Dahlgaard-Park et al., 2018). These key management principles have fundamental relevance to TPI initiatives, as their successful implementation depends upon managers who have the ability to influence their realisation. The participation of organisations in TPI activities can only materialise where management perceives some value in it. The focus of the thesis is to discover the value that HE, VET, and industry managers place on TPI initiatives, in order to answer the

research question, which is: In what ways may TPI contribute to the development of individual and organisational capacities?

Over the past seventy years, modern management theories have continued to evolve through interdisciplinary studies in response to the challenges of building innovation and social capital. An example of this is Lewin’s (1951) ‘force-field analysis’ which has long been used by decision-makers across disciplines, as a useful analytical tool to identify the factors that drive and restrain movement towards particular goals, such as continuous professional development (CPD) activities, that include TPI initiatives. An example of a decision-making application of driving versus restraining forces, as they relate to human capital, is shown at Figure 2.1.

Figure 2.1: Driving versus restraining forces related to human capital (Capatina et al., 2017, p. 129)

PathMaker - [Force Field Tool]					
File Edit View Force Field Collaborate Window Help					
Image of Fig. 1					
	A	B	C	D	E
1					
2		Central Issue:			HUMAN CAPITAL
3					
4		<i>Driving Forces</i>	→ ←	← →	<i>Restraining Forces</i>
5		Fast integration of newcomers (software developers)	→ ←	← →	Competition is getting tougher on highly skilled software developers (leaving developers risk)
6		Developers' capability to translate customer needs into software architectures	→ ←	← →	Mismatching between certified architects' focus on their ongoing tasks and the dominant challenges of the software development
7		Many opportunities for developers to attend team building activities, as well as project management training programs	→ ←	← →	Propensity to autonomy as dominant feature of highly skilled software developer profile
8		Increasing number of certified technical architects	→ ←	← →	Difficulty to harmonize dissimilar capabilities (e.g. project management – non-core competence versus software development - core competence)
9		Employees' willingness to learn and perform at work	→ ←	← →	Isolated situations reflecting the lack of trust between colleagues working in the same project
10		Sum of Driving Forces	1.93	-1.25	Sum of Restraining Forces

Although any further discussion of management theories is beyond the scope of this thesis, it is important to acknowledge the relationship between management, work, and learning. A constant theme recurring across management literature is the

interconnectedness between knowledge, workplace learning, and professional development for continuous improvement, and these are aspects that are, by their very nature, embedded in TPI activities.

In recent decades, the forces of globalisation and the transforming nature of occupations and occupational knowledge (Billett, 2009, 2010a, 2011, 2014d; Salmi, 2017) have contributed greatly to the growing demand for innovation and training to meet labour market needs. The tertiary education (HE and VET) sector plays a very significant role in this regard, and this is considered further in the next section.

Part 2: Knowledge Work

Various definitions of knowledge work capture different types of work across time (Komlosy, 2018). For the purpose of this thesis, I have chosen the definition of knowledge work in education proposed by Pyörä (2005), which is “education knowledge work requires extensive formal education and continuous on-the-job learning” (p. 124). This definition aligns well with the notion of TPI, which is a form of professional development that is designed to provide a form of continuous on-the-job learning, by placing the teacher *in situ* within an external organisation to acquire new knowledge.

Knowledge workers have been present throughout history and, reliance on knowledge continues to rise “across all professions” (Cortada, 1998, p. xiv). Knowledge workers are individuals “dealing in data and ideas” (Cortada, 1998, p. xiii). The rise of the knowledge society is well noted by many commentators (Bell, 1973; Drucker, 1968; Nonaka, 1994; Toffler, 1990), and one of its key features is a skilled and educated population (Drucker, 2001). Whilst educators play a vital role in this regard, the literature highlights the urgent need to build teachers’ capacities in order that they be better equipped to address the future demands of the knowledge economy (Bradley, Noonan, Nugent & Scales, 2008;

Clayton et al., 2005; Farrell & Fenwick, 2007a). The upsurge of interest in the development of human/intellectual capital remains a topic of increasing importance internationally. This is not surprising given the increasing challenges faced by organisations internationally as they continue to adapt to change. Over recent decades, education policy has been dramatically influenced by global, social, and economic shifts. Technological advances have brought increasing challenges in adapting to new technologies and ways of operating to meet expanding customer needs and expectations, and this has contributed to the growing demand for innovation and training to meet industry needs whilst increasing profitability (Organisation for Economic Co-operation and Development, 2015; Prusak, 1998; Virkkunen et al., 2010). It should be noted that discussion of changes in the global economy is beyond the scope of this thesis.

Occupational knowledge and skills are a vital requirement to enable organisations to compete successfully within knowledge-based economies (Cummins & Kunkel, 2015), and its value is well acknowledged within the literature. TPI initiatives, by their very nature, contribute to the development of individual and organisational capacities through the transfer of information between workplaces and the teacher *in situ*. Of importance to the realisation of these initiatives, is the value education and industry managers place upon them, and this is the focus of the thesis.

The Value of Knowledge

Knowledge has long been recognised as a key strategic resource embedded within organisations through its people, systems and processes (Drucker, 2001). It contributes to innovation and learning and provides organisations with a significant competitive advantage (Cepeda-Carrion et al., 2017; Demarest, 1997; Drucker, 1985) to operate in increasingly complex and constantly changing environments. In the global post-industrial

world of today, the acquisition and maintenance of knowledge has become an essential commodity for business survival and success (Patalas-Maliszewska, 2013). For Prusak (1998) and Cortada (1998), the sustainable advantage of knowledge lies in what organisations know; what they do with what they know; and how quickly they are able to “learn something new” (Prusak, 1998, p. vii).

Knowledge management includes “multiple networks or nodes of knowledge linked together” (Demarest, 1997, p. 321) and should be strategically planned for movement through “policy implementation to monitoring and evaluation” (Demarest, 1997, p. 322). It is important to note that knowledge creation comprises many things. It includes formal and informal information from both internal and external sources; information about work functions; policies; procedures; systems; culture; and processes, together with human and intellectual capital. Considered holistically, knowledge management, professional development and workplace learning/performance are multi-faceted and intrinsically linked activities that encompass the development, acquisition, transfer, and application of explicit and tacit forms of knowledge.

Explicit and tacit forms of knowledge

Distinctions between tacit and explicit knowledge have long been considered by various commentators and their importance is well acknowledged within the literature. The concept of tacit knowledge is attributed to the earlier work of Polanyi (1966), whose search for a deeper understanding of the human condition, once claimed that “we can know more than we can tell” (p. 4). Armstrong and Mahmud (2008) highlight the ancient Socratic origins of tacit knowledge as derived from the Greek term ‘phronesis’. As a concept, tacit knowledge has been widely explored within the literature and its significance in contributing to workplace learning and skill development is well

recognised (Evans et al., 2004). The tacit dimension includes personal knowledge that is “technical or cognitive and is made up of mental models, values, beliefs, perceptions, insights and assumptions” (Smith, 2001, p. 314). Furthermore, it incorporates the skills, competencies or body of knowledge people gain over time; those things which are so ingrained and often taken for granted (Smith, 2001; Sternberg, 1997).

Smith (2001) argues that, because individuals apply their knowledge in unique ways, distinctions between tacit and explicit knowledge are but a means for thinking about knowledge, rather than highlighting their differences. Drawing from the work of Baumard (1999), Armstrong and Mahmud (2008) describe tacit knowledge as “the result of experience that cannot easily be shared, as knowledge that is personal, profound, non-scientific” (p. 190), and furthermore, as knowledge that is “generated in the intimacy of lived experience” (Baumard, 1999, p. 3). Similarly, Evans and Kersh (2014) note the “hidden” dimensions of skills and competences” (p. 58) learned from the breadth of our life experiences, including those which we acquire through formal and informal learning within educational, family, and workplace settings.

By and large, tacit knowledge is open to very broad interpretation that includes “informal skills, tacit skills, personal skills, soft skills, and interpersonal skills” (Evans & Kersh, 2014, p. 58). Although generally understood as occupying the domain of non-formal/unplanned learning, tacit knowledge encompasses that which is “experiential, subjective and personal, and [therefore] substantially more difficult to convey” (Evans et al., 2004, p. 223).

Notwithstanding the desire to capture and codify tacit knowledge for the purpose of individual and organisational capacity building, the idea that it can be shared is seen as problematic. This point is emphasised in Garrick’s (2018) critical examination of

knowledge work in organisations, where it was found that attempts to exploit and utilise tacit knowledge does not necessarily lead to “the transformative capacity of the organisation” (p. 211). This is particularly so in the context of contemporary work environments that have become increasingly performative in recent decades, through the appropriation of new forms of autocratic managerialism (Ball, 2006; Garrick, 2018; Kolsaker, 2008). Certainly, what counts as knowledge and pervades public and private organisations in contemporary times is largely “shaped by measurable criteria such as KPIs for profit” (Garrick, 2018, p. 211). Such an outlook aligns with the general principle that commercial enterprises exist primarily to make money, increase capital and add value efficiently (Garrick, 2018). This tenet is certainly well supported across the broad transdisciplinary fields of management, economics and political science (Demarest, 1997; Drucker, 1993b; Friedman, 1970; Ritholtz & Task, 2009).

According to Garrick (2018), one of the shortcomings of contemporary society is the way in which organisations tend to discourage their staff from questioning existing work practices. This limitation is manifested through the dynamics of power within corporate cultures whose “structures and systems are, at present, primarily vessels for approved discourses” (Garrick, 2018, p. 217). This is a concerning and paradoxical trend, for to curtail the sharing of knowledge and ideas, or to thwart the expression of legitimate employee concerns is tantamount to diminishing opportunities for innovating and transforming enterprises, be they in public or private, commercial or other domains of activity. Indeed, this runs counter to the discourses on workplace learning and organisational development. Garrick (2018) reminds us of the possibilities for learning and knowledge creation that exists within all organisations, by pointing out the potential that all organisations have “for open dialogue, interpretive and action-oriented research,

deconstruction and virtual research that in turn can afford new knowledge construction possibilities” (p. 221). This accords with the views of Nonaka (1994), who sees a constant need to foster the exchange of explicit and tacit knowledge in order to avoid what he describes as the

superficial interpretation of existing organisational knowledge, that has little to do with here-and-know reality [and failure] to crystallize or embody knowledge in a form that is concrete enough to facilitate further knowledge creation in a wider social context. (p. 20)

Alongside the debates concerning the development of knowledge-based societies, there is a view that there should be greater recognition of skills acquired through informal learning, and concerns over how such knowledge “is codified and used” (Evans et al., 2004, p. 222).

Drawing from the work of Howells and Roberts (2000), McWilliam et al. (2002) emphasise the importance of knowledge that adds value, noting too, that “*lived knowledge*” (p. 31) is far more difficult to maintain than codified knowledge. A similar perspective is shared by Eraut (2004), who on the one hand, acknowledges the important role of uncodified cultural knowledge acquired through participation in workplace practices, while on the other hand, highlights the difficulty of codifying tacit knowledge. This is not an insignificant issue given the considerable pressure there is to share the tacit dimensions of individuals’ work, for tacit knowledge is believed to carry potentially transformative capacities through which “everyone is represented as profiting” (Garrick, 2018, p. 211). Nevertheless, there are some challenging aspects to experienced employees being asked to share their knowledge “because tacit know-how is personal and involves individual employees responding in their own ways to the multi-faceted challenges of the professional workplace” (Garrick, 2018, p. 211). This speaks to one of the inherent difficulties of working across organisational boundaries, as that involves negotiating

professional identities through the “complex web of flows, relations and interdependencies ... [and] ... being simultaneously inside and outside” (Edwards & Kinti, 2010, p. 127)

By definition, learning and the generation and development of knowledge is given to mean that it ultimately comprises the application of information into the lived experience, translating cognitive acquisition to praxis, with the goal of benefiting the larger society (Nursing, 2014). Gibbons et al.’s (1994) conceptualisation of Mode 1 and Mode 2 forms of knowledge production focuses attention upon the different ways in which knowledge is created, and how this has changed over time.

Mode 1 knowledge is commonly recognised as formal, discipline-based “traditional knowledge” (Gibbons et al., 1994, p. 1). By and large, it is a distinct kind of knowledge governed by the conventional norms of research, legitimated on the basis of it being fundamentally scientific, and technically founded codified knowledge that is drawn from universities. It comprises

a complex of ideas, methods, values, norms – that has grown up to control the diffusion of the Newtonian model to more and more fields of enquiry and ensure its compliance with what is considered sound scientific practice. (Gibbons et al., 1994, p. 2)

It is important to acknowledge the significant contribution of Mode 1 knowledge, for it has given a great deal to the development of industry and society over time and continues to do so.

Notwithstanding this however, Mode 2 forms of knowledge production have become increasingly more valued. By way of contrast, Mode 2 refers to applied, transdisciplinary knowledge. Several of the salient characteristics of Mode 2 knowledge include its’ “heterarchical and transient” (Gibbons et al., 1994, p. 3) nature, characterised by heterogeneity. Furthermore, Mode 2 knowledge is drawn from and evolves through a

dynamic process of continuous negotiation across transdisciplinary sites. These sites are not restricted to educational institutions, but rather, they extend across a broad array of organisational boundaries that may include a range of enterprises, government bodies and industry workplaces linking individuals, skills and experience through informal and socially distributed networks of communication (Gibbons et al., 1994). Mode 2 knowledge is overtly acknowledged as being different to the propositional, academic knowledge that defines Mode 1 since it is created *in situ* and “embodied in people and projects [marked by] ... collaborative ties” (Gibbons et al., 1994, p. 55). These ties connect the experiences and skills-sets that individuals carry across a broad range of disciplinary and socially distributed work sites. Significantly, it is within these broader socio-spatial dimensions that human activities of communication, participation, and reflection are increasingly seen as imperative to the exploitation and generation of new knowledge (Gibbons et al., 1994).

Another characteristic of Mode 2 knowledge is found in its highly reflexive quality that develops through the diverse, dynamic and unconstrained nature of social interactions occurring through advances in communication technologies, and through the opening up of boundaries across numerous sites of activity. Consequently, it is more widely distributed, with far more players and is, therefore, “subject to multiple accountabilities” (Nowotny et al., 2003, p. 179).

Yet, the conceptualisation of Mode 1 and Mode 2 knowledge is not without criticism. In suggesting a more expansive view of knowledge production, Barnett (2010) rather bluntly challenges the character of Gibbons et al’s (1994) thesis by claiming it to be “hopelessly inadequate for the modern age” (p. 16), and further argues that there should be “no arbitrary limits on what is to count as knowledge” (p. 16). In extending this

argument, Barnett (2010) emphasises the ‘multimodal’ age in which we now live, and suggests that our “legitimate ways of appropriating the world (that is, knowledge) need to be openly multimodal in character” (p. 16). Likewise, Nowotny et al. (2003) call for more expansive knowledge encounters as conventional forms of scientific inquiry (Mode 1 knowledge) are considered to be

no longer ... sufficient in the more open knowledge environments that are now emerging; knowledge also needs to be ‘socially robust’, because its validity is no longer determined solely, or predominantly, by narrowly circumscribed scientific communities, but by much wider communities of engagement comprising knowledge producers, disseminators, traders, and users. (pp. 191-192)

Certainly, the socio-relational aspects of knowledge creation have long been reflected upon by many commentators. Stahl (2000) considers knowledge as a product of “social communication ... [that is] grounded in the life experiences of individuals, in our physical embodiment, in our sense of rationality, [and] in the interaction patterns of communicating communities” (p. 72). For Nonaka (1994), social interaction plays a critical role in the “amplification and development of new knowledge” (p. 15), and the extent to which this occurs across organisational boundaries “defines a further dimension to organisational knowledge creation ... [this being] ... the ontological dimension” (p. 15).

Tantamount to any discussion of workplace learning and knowledge production are some fundamental considerations of the ways in which knowledge is embodied, disseminated, and used to improve products, services, and organisational culture. Generally speaking, many of the discourses about workplace learning found in management and social sciences literature draw attention to the multi-dimensional character of organisational culture and its influence upon the environment in which

workplace learning experiences takes place, and hence, also upon opportunities for knowledge creation and capacity building.

More than two decades ago, Demarest (1997) emphasised the need for management to focus upon the organisation's cultural infrastructure, and if necessary, to change it so that knowledge creation and dissemination is encouraged/rewarded. Organisational culture has a considerable influence upon individual and group actions, including managements' responsiveness to its internal and external environment. According to Rowden (2007, p. 21), organisational culture is manifested by shared patterns of

beliefs and values, rituals, assumptions, norms, artifacts, and patterns of behaviour...based on the organisation's experience about what to do, what not to do, what is worth doing, how people should interact, how decisions are made, how recognition takes place, [and] who gets promoted.

Other components of an organisation's environment and culture include management style; organisational systems and processes; and the skills and capacities of individuals. Eraut (2004) argues that workplace performance commonly involves multiple types of knowledge, together with the application of skill "under conditions that allow little time for the analytic/deliberative approach favoured in higher education" (p. 201). In considering the elements of an organisation's environment, Rowden (2007) emphasises not only the physical and psycho-social needs of workers, but also the "emotional "environment" that the learner brings to the learning endeavor" (p. 20). This is consistent with Billett (2004, 2009, 2014), and Hodkinson & Hodkinson, (2004), who emphasise the role of individual agency and personal dispositions upon workplace learning and development. As Billett (2009) notes, "the agency of individuals as learner-workers will be central to their effective ongoing participation in work" (p. 179).

In the knowledge economy, HE and VET have an important role to play in fostering knowledge networks across boundaries, and through partnerships that support the

development of human and social capital. Drawing from the work of Okano (1993), Hager & Hodkinson (2009) note that some forms of capital may impede development “in a field where they have negative value” (p. 632), such as when an individual fails to be hired because they are seen to be ‘over-qualified’. Yet, it is important to remember that all forms of capital (from a Bourdiesian sense⁵) are considered valuable for the returns they may bring. Even so, Hager & Hodkinson (2009) emphasise the significance of cultural capital, otherwise taken to mean “knowing how to succeed in a particular field” (p. 632). From a workplace perspective, cultural capital includes the “skills, knowledge and understanding of the particular practices of that workplace, including subtleties of social relations and social hierarchies” (Hager & Hodkinson, 2009, p. 632). The value of such qualities lies in the way these “become an integral part of a person’s wider dispositions and capital and an integral part of the social practice of doing the job” (Hager & Hodkinson, 2009, p. 632). In addition to this, one’s cultural capital very much influences their ability to “fit in” (Hager and Hodkinson, 2009, p. 32) and perform effectively within different workplace environments.

In distinguishing between the knowledge cultures of HE and workplaces, Eraut (2004) draws attention to contrasting values given to different kinds of knowledge and how they are “acquired and used” (p. 1). Eraut and Hirsh (2010) also note the balance and significance that exists between diverse forms of knowledge that inform organisational decision-making. These include technical knowledge developed through training; practical knowledge gained from experience; and the personal skills obtained through one’s direct engagement with the broader business environment, including “customers, suppliers or other relevant organisations” (p. 56). As the importance of organisational

⁵ Bourdieu (1977) considered social capital as a property of an individual and not the collective, because class, gender and race created structural constraints and unequal access to institutional resources.

knowledge and innovation grows, it is critical for workplaces to grasp how new knowledge is created and distributed. Not only is this central to building an “active and dynamic understanding of the organisation” (Nonaka, 1994, p. 14), but also key to supporting innovative processes whereby the organisation “creates and defines problems and then actively develops new knowledge to solve them” (Nonaka, 1994, p. 14). Similarly, Tynjala (2008) acknowledges the increasing conceptualisations of knowledge creation and workplace learning being tied to innovation. The concept of innovation has been defined as “a new idea or method, or the use of new ideas and methods” (The Cambridge Dictionary, 2020). Notwithstanding the bias that has long existed towards scientific and technological advances, Lundvall (2016) argues that few of these “are immediately transformed into innovations” (p. 143) and, therefore, calls for a broader interpretation of the concept of innovation, comprising not only that which has been invented and introduced into the market with “proven relevance for the market economy” (p. 142), but also as “something new ... that adds to existing knowledge” (p. 142).

Three types of knowledge considered to be equally important and required by organisations are (Drucker, 1983, p. 185):

- 1) Continuous improvement of processes, products or services (or Kaizen);
- 2) Continuous exploitation of existing knowledge to develop new and different products, processes, and services; and
- 3) Genuine innovation.

These kinds of knowledge must be worked on simultaneously (often in small incremental steps), to achieve minor organisational changes and improvements that support social and economic advancement. Drucker (1993a) sees knowledge creation as ‘hard work’ (p. 191) requiring “a clear focus together with individual or team effort” (p. 190), and argues that for knowledge to be effective, the knowledge that is created must be productive – in other words, it must be capable of being “applied to make a difference” (p. 190). Innovation

forms a salient characteristic of the joint process of knowledge production and capacity building through the interactions between key stakeholders, for “the more skills and competencies are used, the more they develop” (Lundvall, 2016, p. 142).

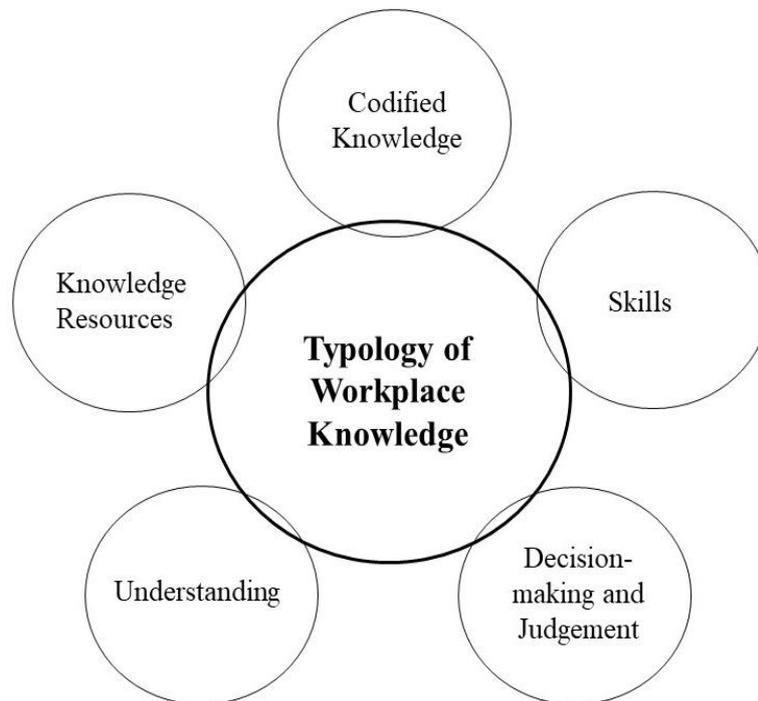
Eraut (2004) contrasts the kinds of knowledge acquired within vocational and higher educational settings with a typology of knowledge developed within the workplace.

Knowledge commonly found in educational settings includes:

- Theoretical knowledge relevant to particular disciplines or applied fields of practice;
- Methodological knowledge related to collecting, analysing and interpreting academic and occupational contexts, together with procedural knowledge relevant to occupational settings;
- Practical skills developed through participation in team-based projects and laboratory work;
- Generic skills acquired through engagement in academic learning (such as language and literacy);
- Communication, self-management and analytical skills; and
- More general occupational knowledge.

An adaptation of Eraut’s (2004) typology of workplace knowledge is illustrated in Figure 2.2.

Figure 2.2: Typology of workplace knowledge (adapted from Eraut, 2004)



Expanding on Eraut's (2004) typology as shown in Figure 2.2:

- 1) Codified knowledge comprises various forms of knowledge including formal professional training and learning; theoretical concepts; organisational systems, policies and procedures, and technical knowledge;
- 2) Skills refers to the various forms of interpersonal skills required for effective workplace performance, such as: the ability to work collaboratively with others; leadership, and technical skills; together with the ability to reason rationally – all of which are acquired through participation in expanding job roles over time that provide opportunities for working in increasingly complex roles, with increasing responsibilities;
- 3) Decision-making and judgement are crucial skills required in the increasingly complex world of today, and in times when information is scant. Areas around

which decision-making and judgement so often occur include people, products, services, systems, and procedures, and competing priorities and strategies;

- 4) Understanding embodies many human qualities including “the understanding of other people-colleagues, clients, managers, etc.; the understanding of situations and contexts ... one’s own organisation and its environment; self-understanding and strategic understanding of a range of changes and developments” (p.207); and
- 5) Knowledge resources encompass the multitude of tools/artefacts and on-line materials that support learning, along with colleagues and other direct and indirect stakeholder networks (such as clients, competitors, professional/government bodies and other business contacts) - these having been built up over an extended period of time, by crossing organisational boundaries.

In the context of TPI, the teacher makes a contribution to knowledge when they are *in situ*, and this may be valuable to the host organisation. Likewise, the host organisation has a contribution to make that is valuable to the teacher. This is an important point because TPI activities are all about reciprocal knowledge transfer between workplace and educational settings.

Yet, despite a general view that academic knowledge is transferable, Eraut (2004) claims there is little evidence to support this idea. Similarly, Haskell (2001) problematises the concept of learning transfer by claiming that for many decades, “individuals ... and educational institutions ... have failed to achieve transfer of learning at any significant level” (p. xiii). This view is further supported by Hager and Hodkinson (2009) who question the “metaphor of learning transfer for trying to understand what happens when people learn something new and/or move into new and different situations” (p. 620). These authors point to contemporary education policy that “continues to make simplistic,

‘common-sense’ assumptions about the transfer of learning” (p. 620), and which have largely been challenged by research and theories of learning over more recent decades (Hager & Hodkinson, 2009). Notably, various learning metaphors emphasise the contested ways in which the nature of learning and the question of its transferability from one context to another have come to be understood. I argue these add to our understanding of how learning may occur within the context of TPI. In the context of this study, the complementary metaphors of learning through participation, learning as reconstruction or transformation, and learning as becoming, as outlined below, offer compelling perspectives of the nature of learning through TPI activity.

- “The propositional lens” (Hager & Hodkinson, 2009, p. 622). Implicit in this traditional “standard paradigm of learning” (Beckett & Hager, 2002, p. 184) is the dualistic Cartesian construct of the separation of mind/body, and the acquisition-based model of learning. Essentially, this proposition assumes learning to be “a product ... thing or substance ... independent of the learner” (Hager & Hodkinson, 2009, p. 622), that may be acquired by the individual, and transferred from one context to another. Although this concept is strongly grounded in Western philosophical beliefs, and long influenced by formal education, it is now widely contested, in part because it ignores the processes by which learning is acquired and transferred (Hager & Hodkinson, 2009);
- “The skills lens” (Hager & Hodkinson, 2009, p. 624). Key assumptions of the skills lens are that “what is learnt is a thing or substance that is independent of the learner ... [and] ... context in which it is learnt” (Hager & Hodkinson, 2009, p. 624), and simply transferable from one context to another;

- “Learning through participation in human practices” (Hager & Hodkinson, 2009, p. 626). This is an increasingly influential and significant lens for understanding how learning arises. It subsumes several key assumptions, namely, that learning is complex and socially constructed; that the individual learns through full and/or legitimate peripheral participation (Lave & Wenger, 1991) in “contextual and culturally grounded activities” (Hager & Hodkinson, 2009, p. 627) within communities of practice (Wenger, 1998). This lens also acknowledges that as novices learn new practices, they progress from a position of peripherality to one of greater involvement within the activities to be learnt. As workplace contexts change, so too does learning and the learner’s personal identity. Significantly, this premise is directed not only to beginners, but also to experienced workers. Although this lens challenges the ‘propositional/acquisition’ and ‘skills learning’ metaphors by not viewing learning as independent from the individual; the central role of agency, and the influence of individual histories and dispositions on learning are missed (Billett, 2001, 2014c; Hodkinson & Hodkinson, 2004);
- “Learning as transformation or reconstruction” (Hager & Hodkinson, 2009, pp. 628-629). Recognised as an important perspective of learning, this lens draws from both a constructivist and activity theory framework. The constructivist lens holds that the learner must “reconstruct their own understanding as what is learned changes” (Hager & Hodkinson, 2009, p. 628). As with learning through participation, what is learned is regarded as changing because each individual learner recreates their own comprehension. Engeström’s (2001) activity theory (discussed later in this chapter), places more emphasis upon the learning context by directing attention to the whole activity system that changes through “either

internal or external contradictions or pressures” (Hager & Hodkinson, 2009, p. 628), and as the context for working and learning changes, individuals “change with it” (Hager & Hodkinson, 2009, p. 628). In addition, activity theory views learning as a process whereby the learner, and what is learned, evolves through “the emergence of novelty as new understandings and/or new contexts are formed” (Hager & Hodkinson, 2009, p. 629); and

- “Learning as becoming” (Hager & Hodkinson, 2009, p. 633). Here, learning is seen as a socio-relational and embodied process of individual construction or reconstruction of oneself that naturally occurs as one “constructs or reconstructs knowledge or skills” (Hager & Hodkinson, 2009, p. 633). Accordingly, learning is “never complete” (Hager & Hodkinson, 2009, p. 633) but a lifelong process. It cannot be separated from living, for even well experienced, skilled and knowledgeable members of an organisation must continue to learn (Hager & Hodkinson, 2009), and as individuals move through the processes of learning, it changes what they know, and what they can do (Dismore, 2014). Drawing from the work of Beach (2003), Hager and Hodkinson (2009) suggest an alternative lens that extends beyond ‘learning transfer’ to ‘learning transition’, such as ‘boundary crossing’ between educational institutions and workplace settings. Importantly, Dismore (2014) sees complementarity between ‘learning as becoming’ and ‘learning as transition’ as these metaphors move the emphasis away from “the transfer of educational knowledge, to people moving between different contexts” (p. 589).

From the discussion thus far, what emerges is the complex nature of knowledge production and its critical role in contributing to social, cultural, and economic capital

through the development of organisational and individual capacities. As society moves further into the 21st century, one of the most significant tasks facing managers will be the need to balance the multiple demands of achieving organisational goals, together with supporting the competing demands of their internal and external stakeholders (Drucker, 2001). Since workplace learning is an important element of knowledge production, it will play a vital role in this endeavour.

In order to guide systematic commentary that will support the focus of this thesis, the next section turns to some key discourses on workplace learning and development through the lens of particular theoretical frameworks.

Part 3: Perspectives of Workplace Learning

Workplace learning is well recognized as an important area of research that has contributed significantly to the development of “knowledge-based economies and societies” (Evans & Kersh, 2014, p. 55). It comprises a transdisciplinary field of study ranging from psychological and pedagogical studies; to research into organisational and human resource development (Fuller & Unwin, 2011; Tynjala, 2008); and closely aligns with discourses on learning organisations and the need for “continuous learning for continuous improvement” (Rowden, 2007, p. 128). Furthermore, a central feature of the socially situated theories of workplace learning are themes of participation in workplace practices (Billett, 2001, 2004b, 2008; Engeström, 1987, 2001, 2011; Lave & Wenger, 1991; Wenger, 1998a).

Under the aegis of UNESCO, two leading education reports were commissioned. The first, “*Learning to be*” (Faure et al., 1972), commonly referred to as the Faure Report, and the second, “*Learning: The treasure within*” (Delors et al., 1996), commonly referred to as the Delors Report, hold many similarities, notwithstanding the two decade period

between them, and the “different socio-political contexts from which they emerged” (Elfert, 2015, p. 88). Both these reports have been associated with the formation of lifelong learning as a global educational concept, underpinned by “a democratic right for personal development and social good” (Biesta, 2006, p. 169). According to Elfert (2018) these reports are significant insofar as having expanded “our understanding of the tensions and shifts in multilateral governance in education over the past 70 years” (p. 3). Yet, internationally, there has been a considerable worldwide shift in lifelong learning policies and discourses in recent decades. An example of this is the Communiqué of the Conference of European Ministers Responsible for Higher Education (2009), in its declaration of the need for stronger links between HE and the labour market. This trend is in keeping with the transition away from a production to knowledge economy in the twenty-first century (McCracken et al., 2017), and towards an increasing expectation of educational institutions to develop human capital for economic benefit (Biesta, 2006). The shifting views of contemporary knowledge and skill requirements underline the significant role of HE and VET, in supporting Australia’s knowledge economy through education and training, to meet its current and future labour market needs.

Lifelong/workplace learning, knowledge work and professional development are commonly conceived as intertwined spheres of activity that are essential in supporting individual growth, the achievement of organisational goals and objectives, and in providing a competitive edge (Demarest, 1997; Nonaka, 1994). The activity of learning through engagement in workplace practices is complex to say the least. It occurs in spaces that are mediated in a multiplicity of ways, such as through communication and negotiated forms of participation across different cultural contexts, and through the sharing of a broad repertoire of knowledge (Billett, 2004c; Lave, 1991; Lave & Wenger,

1991; Vygotsky, 1986; Wenger, 1998b). Effective individual and organisational development depends greatly on an organisation's capacity to manage "existing knowledge, its acquisition and use of external knowledge, and its priorities for developing new knowledge through learning and recruitment" (Eraut & Hirsh, 2010, p. 56).

Research and interest in workplace learning has increased significantly over the past several decades, and discussed extensively in the literature (Billett, 2004c, 2014a; Boud & Walker, 1991; Evans & Rainbird, 2006; Fenwick, 2008; Malloch et al., 2011; Mulder, 2017; Rainbird et al., 2004; Unwin et al., 2009; Wenger, 1998b). This interest coincides with the forces of rapid social, environmental and technological changes across this period; and the need to respond effectively to increasingly new work environments and conditions (Fuller & Unwin, 2011); Significantly, as patterns of work continue to shift, so too will work requirements and the competences required for performing at work (Billett, 2009). The kinds of capacities that will continue to be needed for performance include, not only abilities to communicate and engage with others (these being basic requirements for work), but also abilities to engage effectively in shifting work practices and to interact with new technologies and workplace "tools and artefacts" (Billett, 2009, p. 183). This has considerable implications for the development of knowledge and skill over the course of one's working life (Billett, 2009), as "individuals will need to actively maintain their workplace competence" (p. 179). These factors have led to a growing demand to build vocational/professional knowledge and skill capacities to successfully compete in an increasingly complex world (Biesta, 2006; Billett, 2009; Clayton & Guthrie, 2013; Clayton et al., 2011; Farrell & Fenwick, 2007a; Rishipal, 2013).

A central and long standing feature of education policy for over one hundred years has been its role in building vocational/professional competence "to get means of

subsistence or, in current terminology, prepare students for a labour market relevant qualification” (Mulder, 2017, p. 233). What is especially significant in this endeavour, is the importance of understanding the changing nature of work “in order to inform these educational projects” (Billett, 2010a, p. 98). Since graduates’ job readiness now stands as the global hallmark of the “adequacy of vocational and higher education provisions” (Billett, 2017, p. 52), the strategic alignment of HE and VET learning to contemporary workplace needs is crucial (Biggs, 1999; Mulder, 2017). This argument for making HE and VET relevant to the needs of industry is well supported within the literature (Clayton & Guthrie, 2013; Clayton et al., 2011; Guthrie, 2010; Harris et al., 2007; Mitchell et al., 2003), and strongly stressed throughout various policy discourses at the national and supra-national levels (Australian Industry Group and Engineering Employers Association of South Australia, 2003; Department of Industry Innovation and Science, 2014; Industry Skills Councils, 2012; Organisation for Economic Co-operation and Development, 2009; Universities Australia, 2008).

A key report on Australia’s national workforce development strategy emphasised that (Skills Australia, 2010)

the tertiary education workforce also needs to work, through more effective partnerships with industry, to deliver skills for the new economy and meet the needs of an increasingly diverse group of learners. This will ensure it has the capability and capacity to deliver education and skills in a constantly changing world. (p. 9)

HE and VET have long been considered a genuine arena for preparing individuals for professional and vocational practice (Billett, 2011; Coates, 2009; Commonwealth of Australia, 2012b; Connell, 1995; Dawkins, 1988; Organisation for Economic Co-operation and Development, 2009, 2015; Slotte & Tynjala, 2003). Even so, Barnett (2010) questions the validity of higher education as an “authentic encounter with

knowledge and also as some kind of preparation for practice” (pp. 16-17). Notwithstanding the existence of a relationship between HE and workplace practice, Barnett (2010) speculates that it could also be possible to deny the relationship between the two, and that such an idea is not “dismissed lightly” (p. 17). This argument seems to carry some weight for, notwithstanding the embedding of graduate attributes and employability skills into HE and VET teaching and learning frameworks, there is a broader collective responsibility and effort involved in achieving alignment between industry’s needs and the HE/VET sector, that goes beyond the walls of educational institutions.

In the context of student internships, Universities Australia (2008) argue that:

The issue of work-readiness is not easily solved by higher education institutions on their own. Their responsibility and expertise lie in providing general, flexible education, training and professional skills development, i.e. education that encompasses inquiry, teaching, research and community engagement, not vocational preparation and skills alone. (p. 6)

Although discussion of student internships falls outside the scope of this thesis, it is important to note that the OECD has similarly urged educators to develop linkages with industry to “bring teaching skills to trainers in workplaces, and to ensure that vocational trainers ... are familiar with the needs of the modern workplace” (Organisation for Economic Co-operation and Development, 2009, p. 10). This is a significant point for, to recall, one of the key aims of this research is to explore managers’ perceptions of the value of continuing professional development (CPD) for HE/VET business studies’ educators, in the form of TPI. Whilst a more detailed discussion of TPI is provided later in this chapter, it is important to acknowledge that as a site for learning, TPI initiatives are supported by a corpus of literature within the field of workplace learning.

Conceptualising Workplaces as Sites for Learning

Workplace learning occurs in spaces that are mediated in a multiplicity of ways, such as through communication and negotiated forms of participation across different cultural contexts, and through the sharing of a broad repertoire of knowledge (Lave, 1991; Lave & Wenger, 1991; Vygotsky, 1986; Wenger, 1998b). Furthermore, it depends much on an organisation's capacity to manage "existing knowledge, its acquisition and use of external knowledge and its priorities for developing new knowledge through learning and recruitment" (Eraut & Hirsh, 2010, p. 56). Although there are many factors that impact workplace learning, organisational culture plays a crucial role in supporting the development of individual and organisational capacities. Drawing from the work of Billington (1988), Rowden (2007) identifies several important factors that contribute to successful workplace learning environments. These include workplaces that acknowledge and support individual abilities and needs; encourage entrepreneurship and self-directed learning; and provide optimal pacing of work activities and regular feedback. Eraut & Hirsh (2010) note that much learning at work is of an informal nature, acquired through "consultation and collaboration within the working group, consultation outside the working group and the challenge of the work itself" (p. 25). Positive learning environments are found in workplaces that promote active participation in learning, and in those that support ongoing professional-development and training, and "the trying out of new ideas ... where exercises and experiences are used to bolster facts and theory" (Eraut and Hirsh, 2010, p. 34).

Much of the content taught within professional/vocational programs is traditionally drawn from codified, academic knowledge invariably extracted from a diverse range of sources (including publications and textual materials; theoretical and methodological

knowledge; generic skills and general occupational knowledge). Some commentators are critical of approaches to specialised and vocational learning that have long been dominated by formal education. Eraut (2004) argues that such approaches commonly present professional/vocational knowledge through the lens of 'best practice' principles that often contradict the conflicting demands and competing priorities of workplace activity in different contexts. As such, formal vocational learning is seen as contributing to the "significant gap between theories of practice and the activities performed by current practitioners" (Eraut, 2004, p. 204). This view is also supported by others (Slotte & Tynjala, 2003; Tynjala, 2008). Specifically, Tynjala (2008) argues that formal education outcomes at the tertiary level show "a gap between the knowledge needed at work and the knowledge and skills produced through formal education (p. 131). To illustrate an example of the theory-practice gap, one may turn to a common orientation of organisational studies through the lens of 'systems theory'. This perspective views organisations as an open system, seen in part through the lens of its external and internal environment, and by its processes for maximising returns through the efficient and effective use of its resources (inputs-throughputs-outputs). Although this is fundamentally a critical approach to the management of all business operations, Nonaka (1994) is wary of such a perspective, on the basis that it seems to flow from a

passive and static view of the organisation [wherein] information processing is viewed as a problem-solving activity centred upon what is given to the organisation, without due consideration of what is created by it. (p. 14)

Likewise, Engeström and Kerosuo (2007) judge the 'system view' as being quite inadequate in terms of any attempts to understand and facilitate organisational development or change through expansive learning. In their mind, any attempt to do so must be

initiated and nurtured by real, identifiable people, individual persons and groups. The interventionist researcher must find within the activity system flesh-and-blood dialogue partners who have their own emotions, moral concerns, wills and agendas. Organization must necessarily be translated back into a workplace inhabited by human beings. (p. 340)

This underscores the socio-relational and intrinsically “interpersonal nature of human interaction and learning” (Clegg & Mitchell, 2005, p. 5), and this may also be understood as learning through participation in communities of practice (Wenger, 1998). As knowledge is learnt through mutual engagement in specific work activities, it is important to build work practices that support learning aligned “with desired outcomes” (Billett & Noble, 2017a, p. 209).

Workplaces are well acknowledged within the literature as spaces that provide a fertile cultural, and context specific ground for learning to occur by social means of communication and participation. For Billett, Smith, et al. (2005) workplaces are spaces where “social structures are enacted, and knowledge that has historical and cultural geneses is manifested and engaged with by individuals” (p. 220). Cairns and Malloch (2011) conceptualise the relationship between learning and cognition through the notion of “place” (p. 8), whereby ‘place’ is represented symbolically through a multi-dimensional lens that incorporates the spiritual; virtual; physical; and inter-intra personal domains of being, through which “we may see ourselves as people and learners” (p. 8). For Wenger (1998), the workplace is conceived as a socially constituted “landscape of shared practices, boundaries, peripheries, overlaps, connections, and encounters” (p. 118). These multiple perspectives give form to my own vision of workplaces as sites (sights) for learning - a construct that also appears to resonate with Smith (2011), who visualizes workplaces not merely as sites of employment, labour and capital to produce goods and/or services for profit, but also as places that enable

enactments of knowledge, socially structured and individually engaged, that witness and manifest the relations on which knowledge practices are created, maintained and transformed [and] ... sites of learning and work...social arenas of effortful, goal-directed activity that exist to make demands of their participants ... [and places of] rich interactional complexities that have deep and lasting personal and social significance. (p. 5)

Such conceptualisations of workplaces underscores their dialogical nature, as seen through the social relations that occur within them (Bakhtin, 1984).

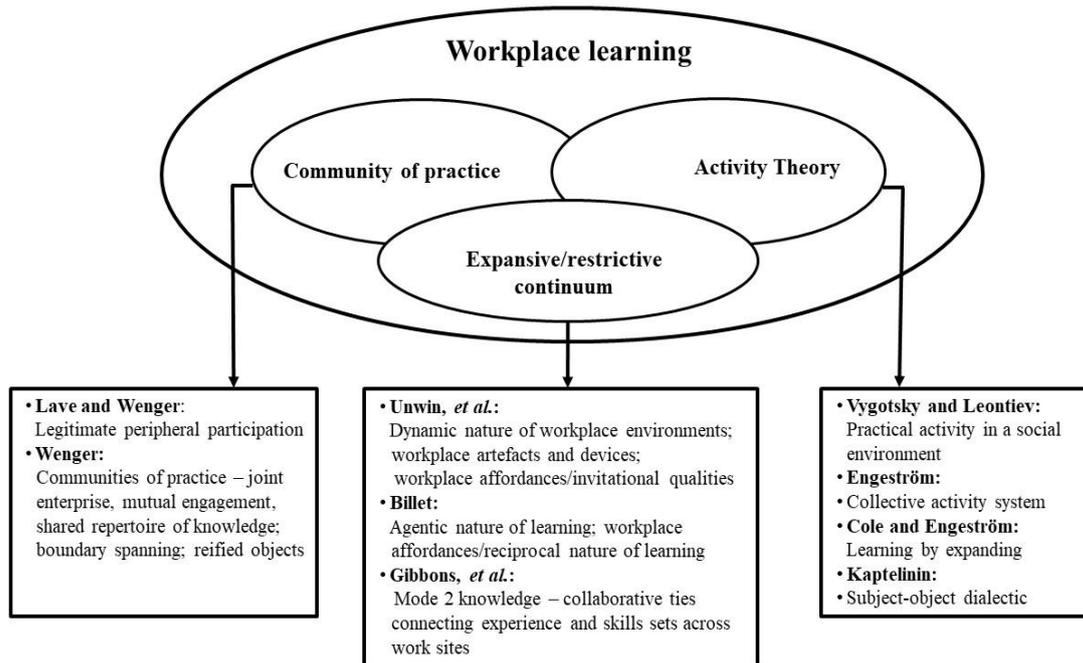
The notion of ‘dialogicality’ has been broadly applied to “to all uses of language [including] all aspects of human conduct” (Koschmann, 1999, p. 308), including “human thoughts, acts and intentions” (Kozulin, 1996, p. 149, as cited by Koschmann, 1996, p. 308). To expand our understanding of this notion further, Wertsch and Smolka (1993) define dialogicality as “the various ways in which two or more voices come into contact with and confront the utterances of a speaker” (p. 74). For Sidorkin (1997), it embodies special forms of social relationships comprising “a multitude of identities, mutually contradicting but still meaningful if taken together” (p. 3). Wegerif and Major (2019) extend the notion of ‘dialogicality’ through the metaphor of a “dialogic space” (p. 113), that is, the “opening up [of] a shared space to different perspectives ... [to]... draw learners into participation in the processes through which knowledge is constructed and validated” (pp. 113-114). In essence, these conceptualisations of dialogicality are inextricably entwined with social theories of learning. For Koschmann (1999), discourse (or communication) is a “central means through which new understandings are negotiated among participants” (p. 105). Consequently, it performs a critical mediating function “that effects change and development” (Koschmann, 1999, p. 105).

Theories of dialogicality advance an “alternative means for conceptualizing ... knowledge building” (Koschmann, 1999, p. 310) by shifting traditional thinking about

learning from being “a discrete achievement or event ... to a more dynamic and process-based account ... [whereby learning is located] in social interaction rather than in the head of any one learner” (Koschmann, 1999, p. 309). This view is consistent with Hicks (1996), who sees learning as occurring through “the co-construction (or reconstruction) of social meanings from within the parameters of emergent, socially negotiated, and discursive activity” (p. 136). Dialogic theories are believed to be easily incorporated into other socially situated theories of learning (Koschmann, 1999). Certainly, in the context of this thesis, there is an inherent relationship between theories of dialogicality and activities associated with TPI as a form of CPD. This will be further explored in the next section, through the lens of particular social theories of workplace learning, as summarised at Figure 2.3.

Figure 2.3 conceptualises the main theoretical frameworks which I have drawn from to inform and support this study. These theories pertain to the socially situated nature of workplace learning, and therefore, are central to the focus of my thesis, as TPI activity occurs through participation in workplace practices. Consequently, I argue this theoretical framework offers important insights into the complex socio-relational processes enmeshed in the exchange of explicit and tacit forms of knowledge. They also reveal aspects of human interaction that may hinder or enable sustainable forms of capacity building through TPI initiatives.

Figure 2.3: Main social theories of learning relevant to TPI (own elaboration)



Activity Theory

Activity theory (Cole & Engeström, 1993; Engeström, 1987), the expansive/restrictive continuum (Fuller & Unwin, 2004), and community of practice (Wenger, 1998b) all contribute to the conceptualisation of learning, particularly in work based programs such as TPI. These theories are important because their conceptualisation brings greater insight and understanding as to how TPI processes function in relation to knowledge transfer mechanisms; how learning is socially situated through the development of interpersonal relationships and networks; and how workplace environments may facilitate or hinder learning to build individual and organisational capacities.

Activity theory draws largely from a socio-psychological framework within the cross-disciplinary fields of psychology, education, and organisational studies, and forms an important part of social models of learning that have advanced our understanding of human development (Sannino, 2011). Although a detailed historical account of the

development of activity theory falls outside the scope of this thesis, some commentators (DeVane & Squire, 2012; Engeström, 2001; Sannino & Engeström, 2018) trace its origins back to the early 20th century school of Soviet psychological thinking of the 1920s and 1930s, that is, Vygotskian cultural-historical psychology and praxis-focused Marxist materialism. An alternative historical positioning is offered by Kuutti (1995), who claims it as having a background tradition that draws from 18th and 19th century German classical philosophy that lay emphasis upon “both developmental and historical ideas and the active and constructive role of humans” (p. 22). Activity theory has been increasingly used to address the challenges and conflicts of the 20th and 21st century (Foot, 2001), and to purposefully “redirect our gaze from what is going on inside the individual to what happens between human beings, their objects, and their instruments when they pursue and change their purposeful collective activities” (Sannino & Engeström, 2018, p. 44). According to Hasan and Kazlauskas (2014), theories of activity provide a constructive frame for studying human activity and interactions within given settings, and identifies “who is doing what, why and how” (p. 9). Likewise, it is used as a means of understanding the “messy networks of human interactions by looking at people and their tools as they engage in particular activities (Russell, 2009, pp. 19-20). By incorporating concepts of “mediated action” (Miettinen et al., 2009, p. 1317) with theories of dialogicality (Bakhtin, 1981; Marková, 2003), activity theory complements Engeström’s (1987) conceptualisation of expansive learning and transformation (Daniels et al., 2007).

Interest in theories of expansive learning developed as a consequence of historical shifts in the nature of work and the need to redefine organisational systems and processes in keeping with the push for lean production and continuous improvement. According to Engeström and Kerosuo (2007), concepts of expansive learning

build upon the idea of learning as a longitudinal process in which participants of an activity system take specific learning actions to analyse the inner contradictions of their activity, then to design and implement a new model for their activity that radically expands its object, opening up new possibilities for action and development. (p. 339)

In contemporary times, many individuals wrestle with major changes in their professional activities. For Engeström (2007), this experience serves as a bridge for transforming practices by placing practitioners

into imagined, simulated, and real situations that require personal engagement in actions with material objects and artifacts (including other human beings) that follow the logic of an anticipated or designed future model of the activity. (p. 37)

Drawing from the work of Engeström (1987), Vandebrouck et al. (2012) argue that “engaging in activity collectively not only increases action potential but also opens up a zone of proximal development for individual learning and transformation” (p. 127). Unlike typical outcomes of learning that are considered in the context of “knowledge, skills and changed patterns of behaviour” (Engeström, 2007, p. 339), in expansive learning, the outcomes are assessed in terms of “expanded objects and new collective work practices, including practices of thinking and discourse” (Engeström & Kerosuo, 2007, p. 339). Furthermore, the dialogical nature of participation in activities shapes individual identities and transforms organisational practices (Billett, 2004b; Engeström, 2001, 2011; Engeström & Kerosuo, 2007; Wenger, 1998a).

Activity theory spans three generations of conjecturing, with each generation having developed “its own prime unit of analysis” (Sannino & Engeström, 2018, p. 45) . Conceptually, a unit of analysis provides direction to what one may wish to examine. First generation activity theory is generally accepted as being drawn from Vygotsky (1978) and Leontiev’s (1978) studies of human cognition, including theories of culturally

mediated tools. One of the basic precepts of Vygotsky's theory was the central role that mediated social processes and tools play in human interaction with the world (Verenikina, 2010). Although Vygotsky's work on tools of mediation did not specifically incorporate a full analysis of the notion of activity, according to Verenikina (2010), "his theoretical approach pre-supposed the concept as one of its fundamental building blocks" (p. 19). In second generation activity theory, Leontiev (1978) extended Vygotsky's notion of tools of mediation through a prime unit of analysis that focused upon the essential components of human activity (Foot, 2001; Russell, 2009; Sannino & Engeström, 2018). Leontiev (1978) recognised that an activity is both comprised of, and distinguished by its object or purpose; that it fulfills a specific requirement of the subject, and is oriented towards an object; and that once that requirement or need is satisfied, the activity ends, and is "produced again, perhaps in other, altogether changed conditions" (Foot, 2001, p. 9). Engeström's (1987) third generation model of activity theory further advanced and integrated the work of Vygotsky (1978) and Leontiev (1978) into what is now more commonly known as cultural historical activity theory (CHAT). CHAT focuses upon the socio-cultural structures and contradictions within an activity system to understand how activity is mediated (DeVane & Squire, 2012).

In the context of this study, TPI may be viewed through the lens of Engeström's 3rd generation CHAT. Taken as the prime unit of analysis, TPI comprises a multi-voiced community of interacting activity systems (that is, HE and VET institutions; educators and business enterprises), each with their own histories of occupational practices, perspectives, and interests that are shaped by the artifacts, rules and conventions enacted through the division of labour, and engagement in goal-directed activities. The activities of TPI aim to foster teacher industry currency and develop mutually beneficial education-

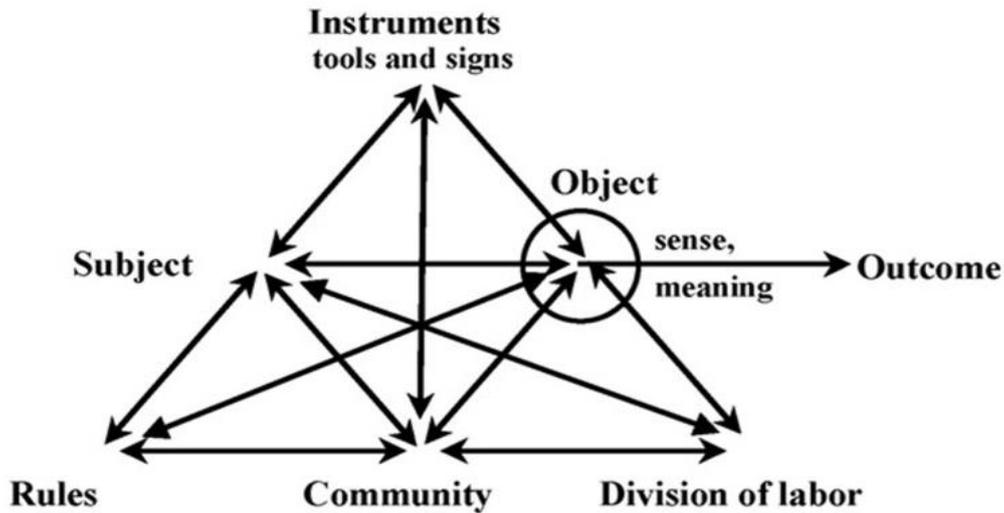
industry networks. It is important to note that contradictions are a common feature within all activity systems (Engeström, 2004), and these include contestations between new and old patterns of activity that generate resistance and force modifications; and “tensions, disturbances and innovation” (Sannino & Engeström, 2018, p. 49). Contradictions play a significant role as “sources of change and development ... [because they] are historically accumulating structural tensions within and between activity systems” (Engeström, 2001, p. 137). Although often expressed in terms of “problems, ruptures, breakdowns [and] clashes” (Kuuti, 1995, p.28), Engeström (2004) suggests that contradictions should not be viewed as problematic, but instead, “as sources of change and development” (p. 150). This is because in making activities operational, they must invariably be supported through coordination, negotiation and conflict resolution related to “object/motive, about structure of activity ... [and] ... about actions, etc” (Kuutti, 1995, p. 29). Furthermore, as activity systems are constantly working through frictions and ambiguities - in dialectic terms, this reflects a ‘unity of opposites’, otherwise described as oppositional forces within a structure or system. Significantly, these “require one another and through their interplay, form the basis of the development of the system. Since activity systems offer possibilities for “expansive transformations” (Engeström, 2004, p. 150), they are thus viewed as a shared “journey through the zone of proximal development of the activity” (Engeström, 2004, p. 150). Indeed, TPI initiatives are a shared journey, not without tensions and conflict, as the outsider (teacher) causes disruption by being *in situ*, yet the disruption has the potential for transformative learning for the individual and organisation, insofar as it challenges existing practices and processes, with a view to innovation. The realisation of TPI activity, however, will largely depend on how positively managers value them.

These principles of CHAT share common characteristics with other social theories of learning (Billett, 2001, 2004c, 2007; Billett & Noble, 2017a; Fuller & Unwin, 2004; Lave & Wenger, 1991; Wenger, 1998b) and these are discussed later in this chapter.

The notion of activity is “a form of doing directed to an object” (Kuutti, 1995, p. 24) that is tangible (something material), or intangible (such as an idea or plan). It involves complex forms of interaction between individuals and their environment (Verenikina, 2010), yet most of all, an activity is something capable of being “shared for manipulation and transformation ... [of some kind] ... by the participants of the activity ... [or possibly] ... the object and motive will reveal themselves only in the process of doing” (Kuutti, 1995, p. 24). Importantly, all of this occurs within the context of a given community of practice that is defined by the limits set within it (Diaz-Kommonen, 2004). These limits are revealed in numerous ways through a variety of contextual factors. Broadly, these comprise a complex range of socio-cultural variables that influence the nature of workplace activities, and impact individual forms of participation and non-participation (Billett, 2004a; Fenwick, 2010; Hodkinson et al., 2008; Lave & Wenger, 1991; Unwin et al., 2009; Wenger, 1998a).

Engeström’s (1987) conceptualisation of an activity system is illustrated in Figure 2.4.

Figure 2.4: General model of an activity system (Engeström, 1987, p. 78)



To expand, Engeström’s (1987) model approaches the analysis of human activity and development not only on the basis of the individual, but also by examining the various elements that comprise the entire activity system. In the context of TPI activity there is a direct link between Engeström’s (1987) model and the workplace learning environment that the teacher *in situ* would be exposed to. The entire activity system surrounding the teacher *in situ* incorporates not only that individual, but colleagues/peers they would be working with, as well as the host organisation’s processes, in what may be summarised as a complex multi-faceted amalgam of endeavours. These elements that make up the activity system are elaborated in the next section.

Subject-object-outcome

A key feature of CHAT stems from Vygotsky (1978) and Leontiev’s (1978) concept of object-oriented action. This is the idea that activities move from the subject towards a particular object. The ‘subject’ signifies “the people engaged in the activity system [be they] an individual or a group of individuals” (Trust, 2017, p. 100). According to Trust (2017), “[a]s subjects pursue the object, their identities and knowledge are shaped and transformed through their interactions with the other elements in the activity system” (p.

100). Drawing from the work of Holland et al, (1998), Daniels and Warmington (2007) call for an “expansion and clarification” (p. 383) of the concept of ‘subject’, claiming “it does little to illuminate the formative processes that gave rise to this perspective.” (p. 383). This observation alludes to the agentic nature of individual engagement in workplace activities (Billett, 2010b; Hodkinson & Hodkinson, 2004). Roth (2007) expresses this more specifically by stating:

Practical activity is the unit of analysis and cannot be reduced to the acting subject, object/motive driving the activity, tools, community, division of labor, or norms. These structural aspects of activity are not elements but different ways in which activity is expressed-in one-sided form. True understanding of activity requires us to go further than the analysis of these structural aspects and consider the dialectical relation that integrates agency and structure together (p. 87).

Workplace participation involves individuals in dual relationships of “thinking and acting” (Billett, 2001, p. 213) as they engage in the social and object oriented practices of the workplace. Throughout this process, individual agency is revealed through the manner in which individuals act both interdependently and independently; and at times in ways that are contradictory with workplace norms (Billett, 2001). According to Billett (2001), the

socially derived personal histories (ontogenies) of individuals, with their values and ways of knowing, mediate how they participate and learn in social practice, e.g. in workplaces) ... [thus indicating] ... how relations between the individual and social practice shape individuals’ participation and learning. (p. 213)

Within the concept of ‘subject’, relationships of power and individual positioning are another determinant that influence a subject/s standing, and their level of participation within the activity system (Daniels & Warmington, 2007).

Whilst the ‘subject’ denotes the individual/s involved in the activity, the ‘object’ (or objective) represents the actual “motive, purpose or focus of engagement” (Miettinen et

al., 2009, p. 1318) to fulfill a human need or desire. In other words, it is the motivating force that drives the activity (Batiibwe, 2019), the reason why it is being undertaken by the subject, who is thus “motivated to transform objects into outcomes, or desired results” (Trust, 2017, p. 100). Importantly, the ‘subject’ is responsible for the achievement of measurable outcomes (Brown & Cole, 2002). Furthermore, since the object is always being constructed, it “generates a perspective for possible actions within the activity” (Sannino & Engeström, 2018, p. 46) . Significantly, this accentuates the inherently transforming possibilities that arise through engagement in activities. According to Miettinen et al. (2009), the object is

realized in the construction of products and services that constitute the outcome of the activity [and] the shared reconsideration of the object of activity is vital for change to that activity ... [likewise] ... when an object changes, the means and division of labour also need to be transformed. (p. 1318)

Kaptelinin (1996) describes the object of activity in another way:

Each motive is an object, material or ideal, that satisfies a need. Actions are the processes functionally subordinated to activities; they are directed at specific conscious goals. According to activity theory, the dissociation between objects that motivate human activity and the goals to which this activity is immediately directed is of fundamental significance. Actions are realized through operations that are determined by the actual conditions of activity. (p. 55)

Additionally, there are many situational factors that determine the conditions of workplace activities, for all human activity is “shaped by social structures, culture, and history within the context of a community” (Trust, 2017, p. 100).

Community, division of labour and rules

Workplace communities comprise a multitude of internal and external stakeholders who engage with one another to achieve goals and objectives that are directed towards their individual professional/organisational requirements. Embedded within the

community are various social structures such as organisational hierarchies, together with formal and informal rules of operation, managerial policies and procedures that regulate behaviour, and the division of labour that delineates the shared roles, tasks and responsibilities of actors (Batiibwe, 2019; Cole & Engeström, 1993). Collectively, each of these elements play a significant function in mediating workplace practices through the “continuously negotiated distribution of tasks, powers, and responsibilities among the participants of the activity system” (Cole & Engeström, 1993, p. 7).

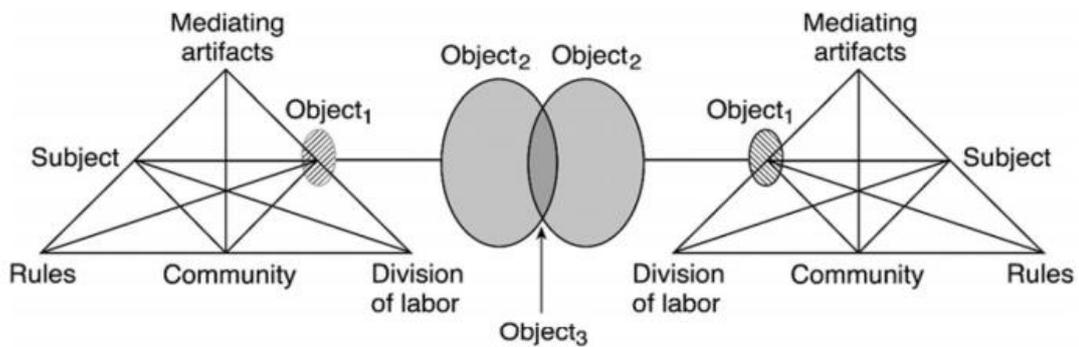
Instruments (tools and signs)

Instruments are another key element of all human activity systems and are described by Russell (2009), as “anything that mediates subjects’ action upon an object” (p. 70). According to Gedera (2014), all human activity is influenced and shaped not only by the tools that are used, but also by the ways in which they are used; and consequently, these factors may enlarge and/or limit opportunities for transformation (Verenikina, 2010). Tools of mediation include both the physical tools, such as “artefacts, instruments and machines), and the psychological, such as laws, signs, procedures, methods and language” (Verenikina, 2010, p. 19). Drawing from the work of Beatty and Feldman (2012), Batiibwe (2019) offers other examples of tools of mediation such as the broad range of “professional development tactics and resources employed to help teachers reflect upon their practice and improve their skills” (p.13). Indeed, TPI activities are designed to do exactly as Batiibwe (2019) suggests, which is for teachers to reflect upon their practice in order to improve their skills. This happens *in situ*, through the immersion of the teacher in the host organisation’s processes. The exposure to industry processes should enable the teacher to reflect upon their existing knowledge and consider ways in

which this may be improved in the context of enhancing the curriculum and contributing towards more ‘work-ready’ graduates.

Another important feature of CHAT is that the prime unit of analysis regarding the phenomenon one wishes to study may go beyond one activity system to another activity system linked together by a “partially shared object” (Sannino & Engeström, 2018, p. 46), as illustrated in Figure 2.5.

Figure 2.5: Third generation CHAT (Hardman, 2015, p. 53)



As activity systems have become increasingly interlinked, they may extend beyond organisational boundaries (Engeström & Sannino, 2020; Sannino & Engeström, 2018), as demonstrated through the form of “a producer—client relationship, a partnership, a network, a heterogeneous coalition, or some other pattern of multi-activity collaboration” . Such patterns of activity constitute forms of boundary crossing that straddle the edges of two or more communities of practice (Wenger, 1998a, 2010), such as education-industry partnerships through TPI initiatives.

Boundary crossing

Boundary crossing refers to learning across and/or beyond workplace boundaries through some form of collaborative effort that gives individuals the opportunity to engage in “new forms of work activity” (Fuller and Unwin, 2004, p. 139). Subsequently, this builds upon existing knowledge, and creates possibilities for transforming existing work

practices. Another characteristic of boundary crossing is that it necessarily involves working with individuals who have different kinds of professional “expertise, tasks and cultural backgrounds in culturally and historically layered contexts” (Kerosuo & Toiviainen, 2011, p. 49). According to Kerosuo (2001)

A boundary divides and separates. It is a place of division between what is familiar, and what is unknown. A boundary is also a place for connecting: being simultaneously part of both sides. Encounters at the boundary can lead to useful re-constructions of those boundaries offering a purposeful ground for learning and development”. (p. 53)

Wenger (2010) emphasises the peripheral nature of working across different institutional/organisational boundaries, including its features of “discontinuities to lines of distinction between inside and outside, membership and non-membership, inclusion and exclusion” (p. 133). Although this suggests that not all boundary activities may link workplace communities of practice in a deep manner, there is nonetheless an important interconnectedness between the tensions of boundaries and peripheries. Wenger (1998b) illustrates this well by explaining that in as much as peripherality “can be a position where access to a practice is possible ... it can also be a position where outsiders are kept from moving further inward” (p. 120). Yet, no matter how limiting a peripheral encounter may be, boundaries and peripheries are mutually entwined by a landscape of practice that gives access to

organized and casual possibilities for participation offered to outsiders and newcomers ... through a complex texture of distinction and association, possibilities and impossibilities, opening and closing, limits and latitude, gates and entries, participation and non-participation. (Wenger, 1998b, pp. 120-121)

Despite the claim that concepts of boundaries and learning are “often general in nature” (Akkerman & Bakker, 2011, p. 133), various studies of boundary crossing draw attention to the scope of its various dimensions. For Hasu (2000), this includes the socio-

spatial; physical-spatial expansion, and systemic-developmental dimensions, which address such matters as “who else should be included ... what other technical artifacts/systems should be considered ... how does this shape the future of the activity, and how the artifacts used in that activity should be developed or transformed?” (p. 16). Drawing from the work of Griffiths & Guile (2003), Kerosuo & Toivianen (2011) argue that studies of boundary crossing require “the construction or transformation of new knowledge, identities and skills rather than only taking advantage of constructs transported from other contexts” (p. 49). Such an assertion appeals to the expansive possibilities that stem from participation in workplace activities (Billett, 2001, 2004b; Engeström, 1987).

Learning at the boundaries differs from learning within the hub of a community of practice in so far as “[i]nside a community, learning takes place because competence and experience need to converge for a community to exist ... [while] ... [a]t the boundaries, competence and experience tend to diverge” (Wenger, 2003, p. 84). Consequently, individuals may be pressed to tackle issues that fall outside their scope of competence, and in turn, lead them to “negotiate their own competence with the competences of others” (Wenger, 2010, p. 130). According to Wenger (2010), this acts as a force that sustains “a creative tension between experience and competence when our participation in a project leverages and nourishes our participation in a community of practice” (p. 130). Accordingly, boundaries may be viewed as

sources of separation, fragmentation, disconnection, and misunderstanding. Yet, they can also be areas of unusual learning, places where perspectives meet and new possibilities arise. Radically new insights often arise at the boundaries between communities. (Wenger, 2010, p. 126)

The effects of boundary work may be measured according to the extent to which it enables effective coordination of resources and practices without placing a burden on others. This is a significant point in the context of TPI since it has implications in terms of securing management support for any such initiative.

Studies by Akkerman and Bakker (2011) identify “four mechanisms of learning at the boundary” (p. 142) that are relevant in the context of TPI initiatives, as discussed below:

1. Identification. Processes of identification arise from the dialogical experience of ‘othering’ that flows from the challenges of engaging within and across different cultural contexts (such as a workplaces and educational institutions) simultaneously. Such experiences across “both worlds” (p. 142) may be “drawn into question ... [in terms of] how and whether they do and do not relate to one another, and in so doing, may lead to “a negotiation of different identities, which do not harmoniously coexist” (p. 142). Another related process of identification is the basic need for individuals to legitimate their “coexistence” (p. 143), and potential interferences between multiple forms of membership across different communities of practice. For the teacher *in situ*, identification is an important consideration because there is a need for them to ‘fit in’ to the host organisation, both in terms of the tasks to be undertaken and the interactions with peers in the workplace, and this is likely to cause tensions as the teacher is working in a completely different environment to the one they are used to and feeling outside their comfort zone;
2. Coordination. Learning at the boundaries of different communities of practice necessarily involves the mediation of boundary objects, tools, and artifacts. This requires effective coordination and communication between the different

sites of practice; and “increasing boundary permeability” (p. 144) to facilitate movement across different worksites. Whilst on placement, the teacher and the host organisation employees will need to coordinate and negotiate how the planned tasks will be conducted. This will require the teacher to be given access to the necessary tools and artifacts (such as organisational resources, policies and procedures and the transfer and sharing of knowledge by host organisation employees) to successfully complete the agreed to tasks, and through this process the teacher will gain additional contextual industry currency they may use for educational purposes;

3. Reflection. A common emphasis in boundary crossing is to “realise and explicate differences between practices and thus to learn something new about their own and others’ practices (pp. 144-145). Boundary crossing creates opportunities to “look at oneself through the eyes of other worlds” (p. 145). Such individual diagnosis is regarded as a competence that may lead individuals to “play an active role in educational change and thus promote their innovative capacity” (Korthagen & Wubbels, 2001, p. 47). Reflection is a powerful tool that is a catalyst for change. The teacher, having experienced the *in situ* environment is well poised to reflect on what they have done in the past, and how close this may align to their recent industry placement experience. Where there is a gap between education and industry practices, through reflection, the teacher, as a result of having participated in TPI activities, can bring innovation to the curriculum, with the end goal of more ‘work-ready’ graduates; and

4. Transformation. The potential for transforming current practices arises at first, by recognizing contradictions between two or more activity systems. Transformation follows from a process of crystallization that occurs by “developing new routines or procedures that embody what has been created or learned” (p. 148). I argue that teachers involved in TPI activities, as explored in this thesis, are more than likely to follow a transformation process in the classroom, in the post placement phase. Indeed, the main purpose of TPI is to acquire new knowledge, build industry currency and enhance classroom activities to make the curriculum more relevant to employers’ demands, and facilitate graduates’ entry into the workforce.

Billett (2007) draws attention to the limitation of Cole and Engeström’s (1997) conceptualisation of activity systems, insofar as it “emphasizes historicism and fails to make mention of or effectively position the individual within the conceptual scheme [of activity systems]” (p.61). Furthermore, theories of activity stand in contrast to Lave and Wenger’s (1991) relational posturing of learning insofar as activity theory embeds the person (subject) as

being one of a number of elements [of the system] ... [thus] ... engagement within social practice is reduced to that of being an element with set and preordained relations between objects and mediating artefacts ... with little room for the agency of individuals in construing and constructing the various contributions which they might engage with when participating in social practices. (p. 61)

Nevertheless, conceptualisations of participating within and/or across different activity systems provide a useful means to analyse organisational systems and how TPI activities contribute to the expansion of workplace learning to build individual and organisational capacities.

Another socially situated theory of learning, also relevant to this thesis, is the concept of expansive-restrictive forms of participation that inhabit work environments (Unwin et al., 2007), and is considered next.

Expansive-restrictive Workplace Continuum

By way of background, theories of expansive learning developed as a consequence of historical shifts in the nature of work, and the need to redefine organisational systems and processes, in keeping with the push for continuous improvement. Generally speaking, the need for a supportive learning environment is well acknowledged as a determinant of effective workplace learning and organisational development. The diverse nature of workplace environments (such as its culture, structure, leadership style, policies and work practices) play a crucial part in supporting or hindering individual and organisational development (Billett, 2004c, 2014b; Rowden, 2007; Unwin et al., 2007). At the same time, organisations are greatly influenced by the external environment in which they operate, and this points to the interconnectedness of internal/external forces and their influence upon organisational and individual capacity building (Unwin et al., 2007). From their studies of workplace environments, Unwin et al. (2007) highlight the interdependent nature of the relationship between “workplace learning, the organisation of work, level of employee involvement, organisational performance, and the broader economic, regulatory and social within which organisations have to operate” (p. 333). Their conceptualisation of workplace environments is positioned along an expansive-restrictive continuum (Fuller & Unwin, 2004; Unwin et al., 2009) that provides a useful tool for analysing the quality of workplaces, through patterns of activity that either restrict or expand opportunities for workplace learning and development, as shown in Figure 2.6.

Figure 2.6: Expansive-restrictive continuum (Fuller & Unwin, 2004, p. 130)



As illustrated at Figure 2.6, the expansive-restrictive continuum highlights some of the variable environmental/cultural features of workplace environments that enable or hinder workplace learning. Expansive work environments form an essential foundation for building synergies between individual and workforce development (Unwin et al., 2009). Dismore (2014) argues for expansive workplaces as they “create a richer environment leading to ‘deep’ learning ... [compared with restrictive work environments

that] ... curtail opportunities and result in surface learning” (p. 586). Deep learning takes time (Gela, 2004), yet brings with it, a greater understanding of “reality and abstract meaning, ultimately leading to a change in the person” (Lemanski, 2011, p. 566). Even so, it is important to note that some organisational systems, structures and/or processes that are intended to support workplace activities may at the same time work against this endeavour, by creating obstacles that impede workplace practices and learning (Brown & Duguid, 1991; Holbery & Mitchell, 2019).

The concept of TPI is predicated on the notion of expansive workplaces, as evidenced by the fact that both the educational institution and the host organisation are willing to engage in specific activities that aim to build individual and organisational capacities. The main beneficiary of TPI activities is presumed to be the teacher, as the main focus is the updating of their industry skills and knowledge. An expansive workplace allows the teacher appropriate access to industry resources required to successfully fulfill the predetermined tasks they are to execute. The teacher will also be additionally supported by the host organisation’s staff, who may act as supervisors/mentors, as the teacher navigates through a somewhat unfamiliar host organisation’s processes, at least in the beginning, and this is another example of an expansive environment.

We are also reminded that the existence of a restrictive work environment does not necessarily assume that an organisation may automatically be led to reform along expansive lines, as “there may be a host of strategic and practical reasons... for why organisations might (rightly in some cases) resist making such changes” (Fuller and Unwin, 2004, p.131). Likewise, this corresponds with the view of Felstead et al. (2005), who claim that access to learning opportunities are unequally distributed in many workplaces for all kinds of reasons. Insofar as TPI activities are concerned, I acknowledge

that difficulties can arise during the period of placement that somewhat restrict what may be potentially achieved, but these considerations are no different to what may routinely happen in any workplace. Here, I am referring to human relations that may result in individuals resisting change, being denied full appropriate access to resources, and the disturbance created by the entry of an outsider (the teacher). However, I argue that these challenges are capable of being overcome by negotiation between the parties involved. The tensions outlined above reflect some of the contradictions present in all activity systems and this shows some overlapping/merging of social theories of workplace learning.

Yet, notwithstanding these arguments, it is generally accepted that expansive work environments make a positive contribution to individual/organisational capacity building; and restrictive workplace practices (such as those identified in Figure 2.6) are more likely to have the opposite effect. This view is reinforced by Unwin et al. (2009) who claim that expansive work environments are identified by the ways in which an organisation provides “access to knowledge and information; the opportunity it provides to practice and develop new skills, the provision of effective support for learning, and the extent to which it rewards learning” (p. 108). Such features form an essential platform for effective forms of workplace participation (Billett, 2001, 2004b; Dismore, 2014; Doroftei et al., 2018; Fuller & Unwin, 2003), and illuminate the means by which organisational practices may be transformed. When TPI activities occur in the host organisation’s workplace this is a form of work practice transformation by learning for both the teacher *in situ* and the firm’s employees. The teacher may contribute to changes in the host organisation’s systems and processes by sharing their theoretical knowledge and expertise. Where the teacher is not able to technically contribute to changes in the host organisation’s

processes, there is still an element of learning for the employees, as they impart process knowledge to the teacher. In so doing, that becomes a learning activity for the employee – in this context, the employee becomes ‘the teacher’s educator’ – one of the benefits of TPI. In turn, the new knowledge gained by the teacher *in situ* can be used to enrich pedagogical practices.

Expansive environments encourage knowledge creation and capacity building through the application of higher level skills, such as “dialogue, problem solving and reflexive forms of expertise” (Holbery & Mitchell, 2019, p. 56). Learning is an “always reflective activity” (Boud & Walker, 1991, p. 19). In other words, it is an embodied, purposeful and interactive process of engagement with others that involves “exploration and discovery that often leads to unexpected outcomes” (Boud & Walker, 1991, p. 19). This interaction affects individuals personally and profoundly by providing insights not only into themselves as learners, but through their experiences of interaction, “relevant pre-existing knowledge ... provides a framework within which new ideas can be grappled with” (Boud & Walker, 1991, p. 21). In as much as learning experiences may foster confidence and build personal/professional identities, so too may learning experiences have the opposite effect, by inhibiting or diminishing one’s involvement in workplace practices. Therein lies the double-sided nature of reflective practice.

In analysing the expansive-restrictive nature of workplace environments and its influence upon workforce development, Fuller and Unwin (2004) identify the various ways in which organisations provide “access to forms of participation and work organisation within communities of practice” (p. 131). Consistent with the notion of workplace affordances (Billett, 2001, 2004b), Fuller and Unwin (2004) support the view that learning arises “from the forms of participation available” (p. 134). Significantly, the

value of knowledge being “shared and mutually created across all parts of a workplace” (Fuller and Unwin, 2004, p.137) expands organisational and individual capacities and contributes to productivity (Fuller and Unwin, 2003). This is consistent with Billett and Noble (2017b), who emphasise the importance of making occupational knowledge “accessible so it can be mediated and variously learnt” (p. 209). These authors strongly advocate for the promotion and sharing of occupational knowledge throughout “working life by co-working with more experienced or expert others” (Billett & Noble, 2017b, p. 209). With this in mind, it useful to consider

...how and what learning can best occur within work environments and through work experiences aligned with the exercise of the knowledge that needs to be learnt. Engaging in goal-directed activities aligned (sic) which requires accessing the knowledge to be learnt, and occurring in physical and social environments that are authentic in terms of the application of the knowledge to be learnt. (Billett & Noble, 2017b, p. 209)

Workplaces that move towards an expansive continuum view knowledge as “a central component of all jobs... [as employees need] ... to cross workplace boundaries in order to both demonstrate their existing knowledge and acquire new knowledge” (Fuller & Unwin, 2004, p. 137).

Adding to the discourse on workplace environments and the expansive-restrictive continuum is the notion of workplace affordances.

Workplace Affordances

Conceptually, the notion of workplace affordances emphasize the socio-relational aspects of human activity and its environment, including the human properties in perceiving the affordances of that environment, and the possibilities it offers (Clegg & Mitchell, 2005). Put simply, workplace affordances refers to the extent to which organisations “afford opportunities for learning ... [and although] ... these affordances

are constituted in work practices ... they are not afforded evenly to all workers” (Billett, 2001, pp. 209-210). To expand on this point, as a site for learning, workplace environments are manifested through many situational variables that influence the quality of workplace learning. These include “workplace hierarchies, group affiliations, personal relations, workplace cliques and cultural practises” (Billett, 2000, p. 31), together with perceptions of competence; ethnicity; gender; work demarcations; power dynamics, and access to resources (Billett, 2001). Such is the contested nature of co-participation in work, that these variables become conflicting “bases of competition and exclusion between competing interests” (Billett, 2001, p. 211). These contestations affect what individuals are able, and/or asked to do, and subsequently lead to unequally distributed opportunities for individual development. In the context of this thesis, workplaces that afford opportunities for learning are likely to result in more effective TPI experiences.

Yet, looking beyond workplace affordances and the invitational qualities of the workplace, the central role of human agency is also acknowledged as another key factor that influences workplace learning (Billett, 2014a; Fischer & O'Connor, 2014; Goller & Billett, 2014; Goller & Paloniemi, 2017; Hodkinson & Hodkinson, 2004). Significantly, this perspective emphasizes the interdependencies between work and learning, for as Billett (2014c) suggests, workplace learning is

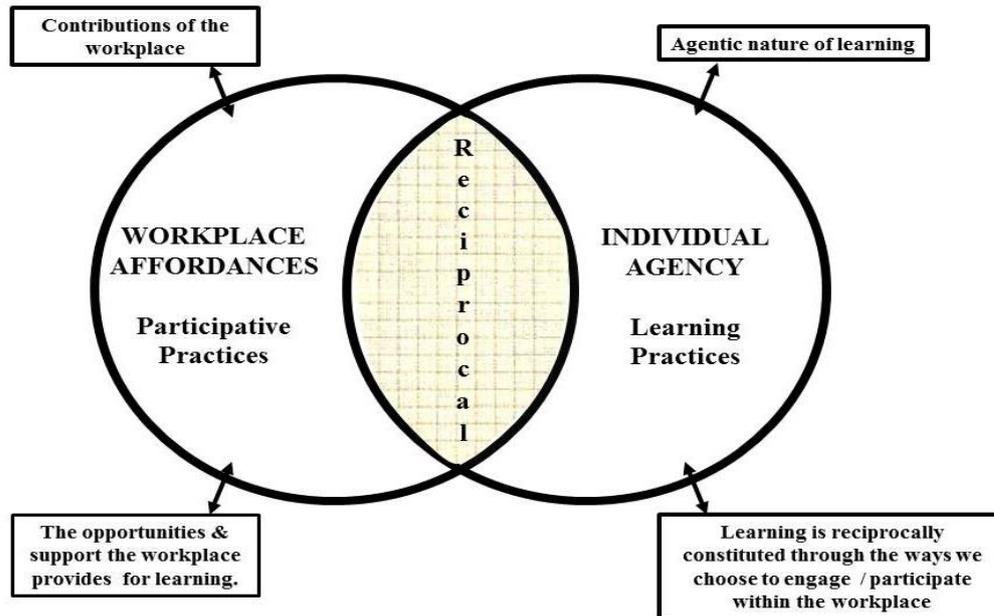
partially person-dependent ... [for] ... even the most welcoming and supportive of ... workplaces might be rejected by workers who are uninterested in engaging with and learning what is being afforded them.
(p. 208)

Likewise, one cannot ignore the influence of individual dispositions (Hodkinson & Hodkinson, 2004), nor previous encounters one has “with the social and brute ... world, beyond the skin, whose legacies are applied to what is experienced subsequently” (Billett, 2014a, p. 371), for these factors also inherently influence the ways in which “workers,

students and managers interact with the social experience they encounter in their workplaces and educational programmes and what they bring to that encounter” (Billett, 2014a, p. 371). These views sharply bring into focus the intersubjectivities of workplace learning (Billett, 2014b), so described as encompassing “the collective contributions of social and brute mediating factors and individuals’ processes of mediating those contributions” (Billett, 2014b, p. 75). These concepts highlight socio-relational and agentic nature of workplace learning, as illustrated in Figure 2.7.

According to Fischer and O'Connor (2014), workplace learning cultures are revealed at a strategic level by the value an organisation gives to learning. This is manifested by the way workers perceive and interpret their learning environment, through the “actions that support learning in the organisation itself and by the experiences that every member of [the] organisation is able to make” (Fischer & O'Connor, 2014, p. 14). These factors are dependent on the “shared values, norms, and attitudes (how learning should happen) as well as it is dependent on the affordances ... offered” (Fischer & O'Connor, 2014, p. 14).

Figure 2.7: The dual nature of workplace learning, adapted from Billett (2008), (Schüller, 2013a, p. 89).



In the context of TPI initiatives, these matters have pragmatic implications in the pre-planning stage. In other words, potential TPI industry host partners will wish to consider what added value an educator would bring to their business, taking into consideration their skills, competencies and personal dispositions, and ability to ‘fit in’ to the work environment of their organisation. As knowledge is learnt through mutual engagement in particular work activities, it is important to build work practices that support learning that is aligned with desired goals, and to consider how this can be done (Billett & Noble, 2017b), for where workplace affordances are present in the environment, this is likely to result in more effective TPI experiences.

It is useful to consider further, how workplace learning and new knowledge is developed through participation in activities within workplace communities of practice.

Communities of Practice

Communities of practice concepts have had a considerable following over the past two decades, having been widely adopted by businesses for capacity building (Gherardi,

2009; Wenger et al., 2002; Wenger & Snyder, 2004; Wenger et al., 2011), and “used as a means to enable managers to understand and intervene in knowledge management processes” (Gherardi, 2009, p. 518). Lave and Wenger (1991) and Wenger’s (1998b) conceptualisation of learning within communities of practice draws from “Vygotsky’s theories of the situated character of learning, remembering and understanding” (Kelly, 2004, p. 499). Embedded within the theory of communities of practice is the idea that the process of learning is “at once social and cognitive” (Gherardi, 2009, p. 516). Lave and Wenger (1991) claim learning to be “an integral and inseparable aspect of social practice” (p. 31) that is situated in a particular context. Their work forms a substantial part of numerous traditions that view learning as socially derived through participation in “certain activities with certain people, but to a more encompassing process of being active participants in the practices of social communities and constructing identities in relation to these communities” (Rowden, 2007, pp. 68-69). A central contention of the nature of learning offered by Billett (2007), and one that accords with my own view, is that learning within a community of practice is a socio-relational process that arises through our engagement in the activities of the social world (community of practice) which we inhabit, and by the “uniquely shaped nature of the person and personal” (p. 56).

Communities, or domains, of practice are characterized by various forms of engagement. To illustrate further:

Some people participate because they care about the domain and want to see it developed. Others are drawn by the value of having a community; they are looking mainly to interact with peers, people who share something important. For those who have devoted most of their lives to learning one profession, connecting with others who share that passion is rewarding in itself. Communities are also a place where people can make a contribution and know it will genuinely be appreciated. Other members simply want to learn about the practice: what standards have been established, what tools work well, what lessons have been learned by master practitioners. The community is an

opportunity to learn new techniques and approaches in their personal desire to perfect their craft. (Wenger et al., 2002, p. 44)

Communities of practice exist in some form everywhere, regardless of whether they are intentionally established and named as such, or not

they exist within businesses and across business units and company boundaries. Even though they are informally constituted and reside within a specific area of practice, these self organizing systems share the capacity to create and use organisational knowledge through informal learning and mutual engagement. (Wenger (2000), as cited in Biscozzo et al., 2005, p. 143)

Yet, as Rowden (2007) points out, “the challenge for organisations is to support them in such a way that they make a positive contribution to creating and sharing organisational knowledge” (p. 71).

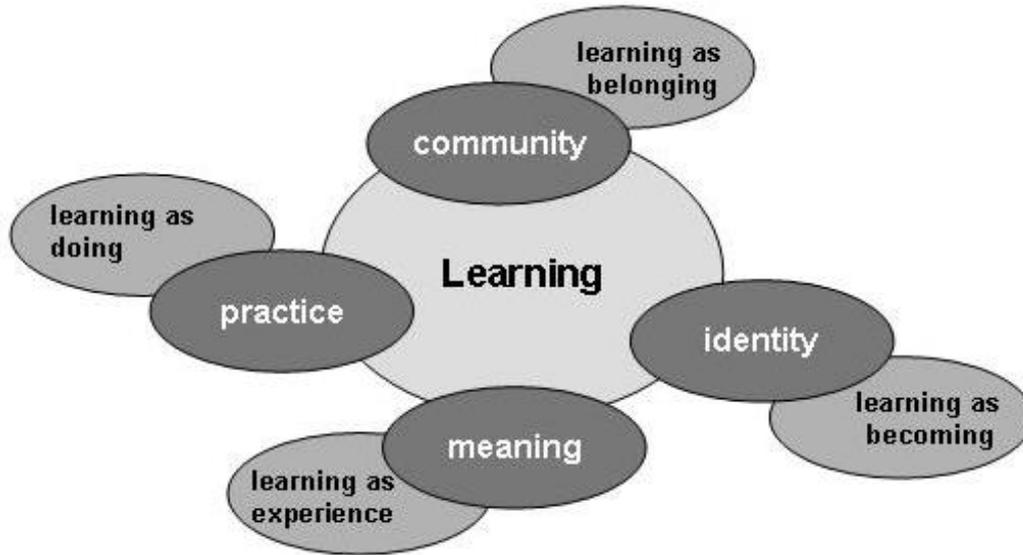
Conceptualising communities of practice as a site for learning

Wenger (1998b) provides several key conceptualisations of workplace learning that offers another useful frame of reference to support this thesis.

Components of a social theory of learning

Wenger (1998b) presents an initial inventory of learning by combining various elements that depict “social participation as a process of learning and of knowing” (p. 4), as illustrated in Figure 2.8.

Figure 2.8: Components of a social theory of learning: An initial inventory (Wenger, 1998b, p. 5)



Collectively, each of these components are profoundly interconnected. Learning is an experience of participation in practices, and this necessarily involves the negotiation of meaning. Community relates to the “social configurations in which our enterprises [endeavours] are defined as worth pursuing and our participation is recognizable as competence” (Wenger, 1998b, p. 5). Identity relates to “a way of talking about how learning changes who we are and creates personal histories of becoming in the context of our communities” (Wenger, 1998b, p. 5). Thus, learning is constituted through the ways in which we participate in the practices of the communities to which we belong, and our sense of self, of who we are, is shaped by the ways we engage with one another.

Legitimate peripheral participation

The notion of legitimate peripheral participation is an important concept that is claimed to have been originally formed by Lave and Wenger (1991), through their historically grounded analysis of apprenticeships, and interest in “how novices become full practitioners through participation – as a way of belonging – to a community of practices” (Gherardi, 2009, p. 517). According to Kelly (2004) legitimate peripheral

participation refers to the way that individuals (as ‘newcomers’) learn and develop knowledge and skills as they gradually progress further towards full participation in the socio-cultural practices of a community. Lave and Wenger (1991) link legitimate peripheral participation to a socio-cultural process that provides individuals with the opportunity to participate with other practitioners in an existing community of practice, to build their knowledge and skill. For these authors, legitimate peripheral participation

provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of knowledge and practice. A person’s intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice. This social process, includes, indeed it subsumes, the learning of knowledgeable skills. (Lave & Wenger, 1991, p. 29)

It is important to note however, that in the context of TPI activity, educators “shift their practices between classrooms and workplaces” (Harris & Simons, 2005, p. 146), and consequently, it is not possible for them to achieve full participation in the work activities of a host organisation. Notwithstanding this, peripheral participation in TPI activities offer a variety of mutually beneficial capacity building opportunities for educators and industry host partners alike, and these are considered later in this chapter.

Individuals’ participation in communities of practice “may take many forms, and may encompass individual practices of modification and resistance” (James, 2007, p. 136). As Wenger (1998b) reminds us, “peripherality can be a position where access to a practice is possible, but it can also be a position where outsiders are kept from moving further inward” (p. 120). Certainly, in the context of TPI activity, one cannot ignore the potential challenges posed by an educator who enters an industrial setting as a newcomer carrying an existing repertoire of established “old-timer credentials” (James, 2007, p. 135), formed from academic qualifications and “knowledge, expertise, skills, values and experience in

cognate fields” James, 2007, p. 135. Peripheral participation can produce tensions and disturbances of existing workflows of host organisation employees that separate, rather than unite the participants of TPI activities, and undermine the professional identity of the educator. This reflects the dual nature of boundary relationships that arise through peripheral participation in often competing and complimentary ways by creating

divisions and be a source of separation, fragmentation, disconnection, and misunderstanding. Yet, they can also be areas of unusual learning, places where perspectives meet and new possibilities arise. Radically new insights often arise at the boundaries between communities ... [and therefore] ... communities and boundaries can be learning assets (and liabilities) in complementary ways. (Wenger, 2010, p. 126)

Thus, legitimate peripheral participation across multiple boundaries of practice provides a highly textured nexus of complex connections, associations and disconnections woven through “a landscape of practice [that offers] possibilities and impossibilities, opening and closing, limits and latitude, gates and entries, participation and non-participation (Wenger, 1998b, p. 121).

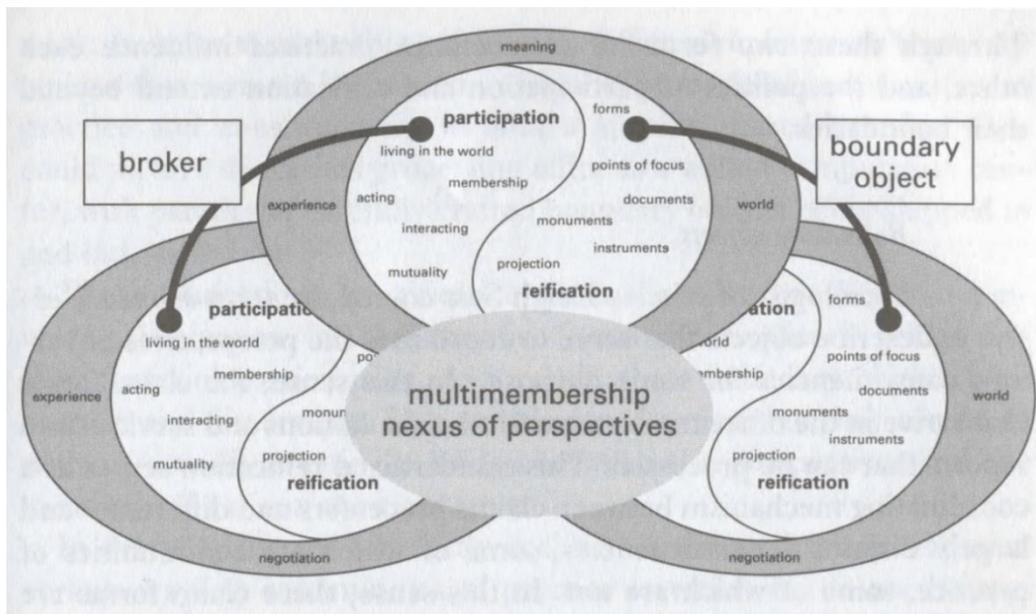
Participation is a critical aspect of mutual engagement, and according to Wenger (1998b), the idea of mutual engagement should not assume “an idealized view of what a community should be like ... [i]n particular, connotations of peaceful coexistence, mutual support, or interpersonal allegiance are not assumed” (pp. 76-77), as “whatever it takes to make mutual engagement possible is an essential component of any practice” (p. 74). Wenger (1998b) presents two kinds of connections that support participation in multiple communities of practice, as follows:

- 1) Boundary objects. These include a wide variety of tools or ‘reified objects’. These cover a wide range of objects such as policies, learning plans, contracts, stories, agreements, and other resources that are embedded in “aspects of human experience

and practice” (p. 59). These objects give form to our experience of participation and provide a context for learning and development; and

- 2) Brokering (or boundary spanning) - this is an important activity that enables access to potentially rich boundary encounters across different communities of practice as illustrated in Figure 2.9.

Figure 2.9: Boundary encounters - Participation and reification as connections (Wenger, 1998b, p. 105)



Brokering involves “processes of translation, coordination, and alignment between perspectives ... It also requires the ability to link practices by facilitating transactions between them” (Wenger, 1998b, p. 109). Brokers are involved in “collective and interactive” (Meyer, 2010, p. 121) forms of connection, and, as they move between multiple sites of practice exchanging knowledge, they engage in activities such as

articulation work, communication work, identification work, mediation work, educational work, and so on. All these activities require a variety of tools, such as organizing seminars or meetings ... developing databases, producing plain-language booklets ... and so on and so forth (p. 121).

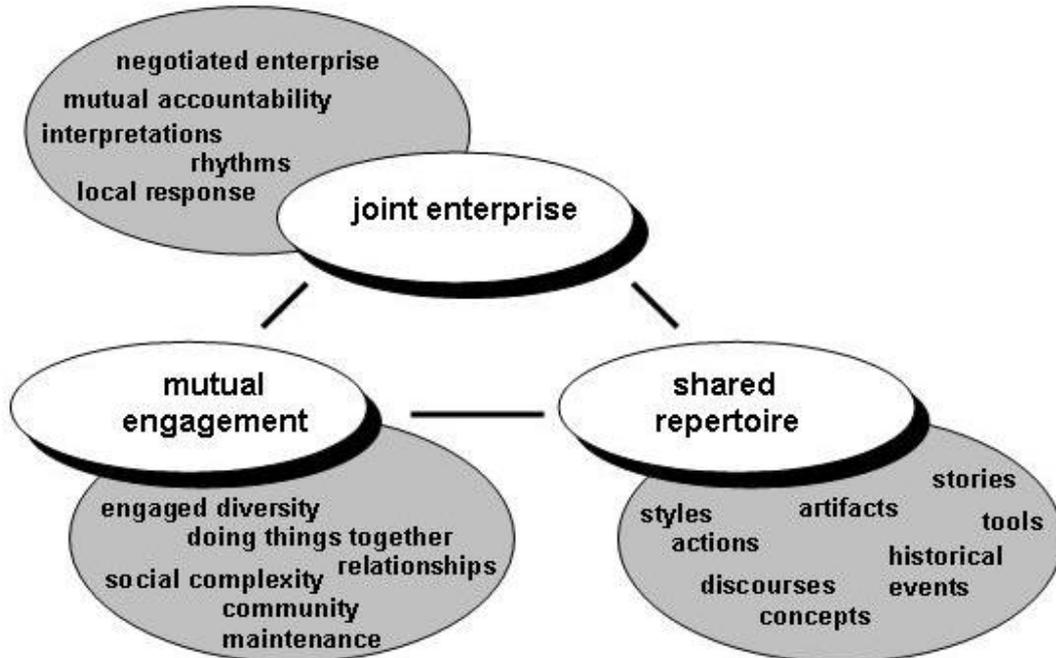
Meyer (2010) highlights two particular key movements to boundary work as follows:

On one hand, there is a translation of knowledge from one world to another. On the other hand, we see efforts to make knowledge socially, politically, and/or economically robust. So both the translation of knowledge and the translation of accountability/usability take place. The end result of these translations is the production of a new kind of knowledge—what we could call brokered knowledge. Brokered knowledge is knowledge made more robust, more accountable, more usable; knowledge that “serves locally” at a given time; knowledge that has been de- and reassembled. (p. 123)

Three dimensions of a community of practice

Wenger introduces three dimensions of a community of practice that supports learning, as illustrated in Figure 2.10. Access to forms of participation in shared practices is built around mutual engagement, and a shared repertoire of knowledge across joint enterprises.

Figure 2.10: The three dimensions of a community of practice (Wenger, 1998b, p. 73)



Mutual engagement is “what defines the community” (Wenger, 1998b, p. 73) and is critical to learning and development, as this relies on the sustained interactions between individuals, because

mutual engagement involves not only our competence, but also the competence of others. It draws on what we do and what we know, as well as on our ability to connect meaningfully to what we don’t do and what we don’t know – that is, to the contributions and knowledge of others. (Wenger, 1998b, p. 76)

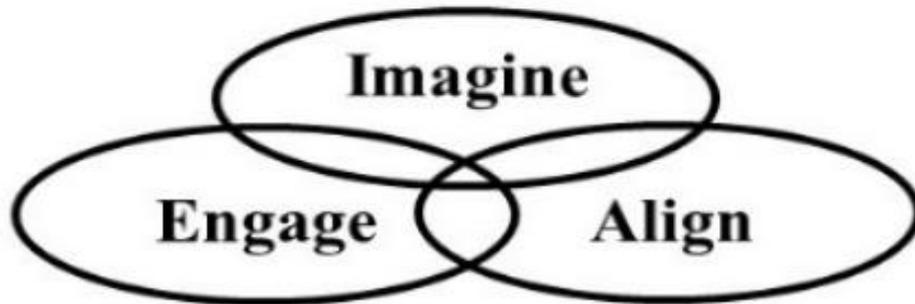
Joint enterprise refers to the collective processes of negotiation of goals and objectives around that enterprise. The joint enterprise is defined by the participants as they pursue it through negotiated forms of mutual engagement, in all its complexities; thus building “relations of mutual accountability that become an integral part of the practice” (Wenger, 1998b, p. 78).

Shared repertoire refers to the shared resources that are produced around joint enterprises over time, to support the practices of the community. Elements of a shared repertoire of knowledge include many different forms of artifacts, and discourses “by which members create meaningful statement about the world, as well as the styles by which they express their forms of membership and their identities” (Wenger, 1998b, p. 83).

Modes of belonging

As the formation of communities of practice are heavily influenced by the negotiation of identity, Wenger’s (1998b) conceptualisation of ‘modes of belonging’, as illustrated in Figure 2.11, contribute to our understanding of learning in a community of practice.

Figure 2.11: Modes of belonging in communities of practice (own elaboration)



The formation of a learning community is strongly influenced by a “threefold process” that incorporates (Wenger, 1998b, p. 174):

- 1) Ongoing negotiation between participants to create meaning;
- 2) The formation of trajectories; and
- 3) The unfolding of histories of practice.

Engagement, imagination, and alignment are interconnected features of communities of practice that “each create relations of belonging” (Wenger, 1998b, p. 181). As individuals participate in the activities and actions of their communities of practice, they engage in complex relations of groups, teams, or networked activities and actions over the course of space and time, through mutually negotiated means. According to Wenger (1998b)

Engagement requires access to and interaction with other participants in the course of their own engagement. Engagement also requires the ability and the legitimacy to make contributions to the pursuit of an enterprise, to the negotiation of meaning, and to the development of a shared practice. (p. 184)

Imagination is “the process of expanding our self by transcending our time and space and creating new images of the world and ourselves” (Wenger, 1998b, p. 176). The work of imagination involves individuals in taking risks, in exploring opportunities, and building connections. Some of the characteristics of this work involve actions such as (Wenger, 1998b, p. 185):

- Defining a trajectory that connects what we are doing to an extended identity, seeing ourselves in new ways;
- Locating our engagement in broader systems ... conceiving of multiple constellations that are contexts for our practices;
- Creating models, reifying patterns, producing representational artifacts;
- Documenting historical developments, events, and transitions; reinterpreting histories and trajectories in new terms; using history to see the present as only of many possibilities and the future as a number of possibilities; and
- Generating scenarios, exploring other ways of doing what we are doing, other possible worlds, and other identities.

Alignment involves the coordination of boundary objects and activities to “connect local efforts to broader styles and discourse in ways that allow learners to invest their energy in them” (Wenger, 1998b, p. 187). This involves establishing a common ground or sense of purpose; defining goals and objectives, developing procedures and control systems to guide practice. Wenger (1998b) argues that “with insufficient reification, coordination across time and space may depend too much on the partiality of specific participants, or it may simply be too vague, illusory, or contentious to create alignment” (p. 187). As alignment involves dynamics of power, it may also have negative effects in the sense that it can “involve control and can result in individuals being disempowered if they adhere to practices without meaningful engagement in [them]” (Goodnough, 2010, p. 169). Likewise, Billett (2007) argues that

While the social situation can press its case through its norms and practice, these are mediated by the individual’s agency in the form of what others describe in terms of the individual’s subjectivity, intentionality and interest. (p. 56)

Without genuine access to, and meaningful and sustained engagement in the activities of the community of practice, our identities are challenged as we attempt to participate with the unfamiliar. Wenger (1998b) illustrates this well by noting that

We experience and manifest ourselves by what we recognize and what we don’t, what we grasp immediately and what we can’t interpret, and

what we can appropriate and what alienates us, what we can negotiate and what remains out of reach. In practice, we know who we are not by what is foreign, opaque, unwieldy, unproductive. (p. 153)

Notwithstanding the contribution of Lave and Wenger's (1991) seminal work to our understanding of the situated nature of workplace learning, its limitations have been noted by various commentators. As their research was conducted in a stable environment, Eraut (2004) points to its selective focus upon

common rather than differentiated features of people's knowledge ... [and weakness in failing] ... to recognise the need for an individual (as well as socially situated) concept of knowledge in the complex, rapidly changing, post-modern world. (p. 2)

Fuller and Unwin (2004) argue that Lave & Wenger's (1991) notion of learning through legitimate peripheral participation falls short, insofar as it "does not highlight the relevance of other forms of participation, such as boundary crossing between multiple communities of practice" (p. 134). However, it is important to note that this issue is later addressed by Wenger (1998b) through his analysis of the role of boundary spanning across multiple communities of practice. Fuller and Unwin (2004) claim that themes of moving beyond tightly bounded forms of participation are consistent with their notion of expansive learning environments, as previously discussed. Furthermore, Fuller (2007) acknowledges the contributions of communities of practice concepts (Lave, 1991; Lave & Wenger, 1991; Wenger, 1998b) for having increasingly "informed analyses of informal and workplace learning, due to dissatisfaction with the more traditional conceptualisations of learning including cognitivism and behaviouralism" (p. 18).

What has been established from the preceding review of literature is an appreciation of the complex variables that influence workplace learning, and the vital role of HE and VET in contributing to social and sustainable economic growth and prosperity going forward. Clearly, it will be through the ongoing development of individual and

organisational capacities, that Australia's labour market needs will best be supported to address this challenge. Importantly, in working towards this endeavour, a critical area of focus will be investment in strategically aligned professional development activities to strengthen HE and VET educators' occupational and professional capacities.

As an enabler of change, professional development plays an integral role in workplace learning, and in supporting the agenda for skills and workforce development. This subject is further addressed in the next section.

Part 4: Professional Development in HE and VET

One of the prevailing themes within contemporary HE and VET policy discourses is the national agenda for skills and workforce development, that is central to the achievement of broader economic goals and objectives. Within this context, a dominant theme is the need to strengthen collaboration between HE, VET, and industry, to make education more relevant to the needs and demands of industry by building knowledge and skills.

Against this background, the value and importance of continuing professional development (CPD) in building occupational capacities is examined in this section, particularly in relationship to the needs of HE and VET educators in building and maintaining industry currency to support pedagogical practices. Importantly, the shortcomings of institutional approaches to CPD are identified, as these highlight the contradictions between policy and practice and underlying challenges in supporting the aims of the national agenda for workforce development.

Interest in this field has gained increasing momentum in recent years and plays a most significant function in the life of all organisations, as they endeavour to support individuals to achieve organisational growth. Whilst this is a particularly relevant and

“perennial topic of interest” (Fowler, 2017, p. 1) in VET, it is of equal concern within the HE sector, and this is consistent with Whelan (2017), who claims it is vital that “teaching focused academics ... are maintaining industry connections” (p. 172) as a means of renewing and keeping their curriculum relevant. Despite the academic community’s influence on workplace learning and professional practice, Coles (1996) argues that “its contribution to professional development must be challenged and reformulated” (p. 156).

Studies of the European VET sector (Harris et al., 2009) report an increasing focus upon CPD, including teacher ‘return to industry’ initiatives as a strategic approach to building VET teacher capacities. Yet significantly, these authors highlight a sharp distinction between the experiences of Australian VET educators, compared with their European counterparts, when they note the following:

The centrality of VET teachers and trainers in reform movements occurring in Europe would seem to be in rather sharp contrast to the experience of VET teachers and trainers in Australia over the past 18 years, where not only have they been largely excluded from reform processes but the levels of teacher preparation and the extent of professional development have been progressively undermined”. (p. 29)

Harris et al. (2001) note the importance of the positioning that an organisation gives to staff development “as it can affect the level of support for staff training” (p. 50), and claim that PD initiatives are more likely to make a significant impact where staff development is accorded priority by management, and when the individuals responsible for it are “visible and capable” (p. 50). Some characteristics of effective staff development programs include a clearly articulated policy linked strategically to organisational goals and performance management frameworks; a system which supports individual staff PD

needs; appropriate access to organisational resources; and suitable methods of coaching/mentoring (Harris et al., 2001).

Another significant success factor in staff PD initiatives is the development of mutually beneficial partnerships between the key stakeholders involved in PD activities. Successful partnerships are built on each of the partners having a shared understanding of their goals and objectives, and where “mutual support and the achievement of common goals is expected” (Harris et al., 2001, p. 51). Yet, in practice, a common institutional approach to determining staff development needs “is likely to be more reactive, just-in-time and short-term than proactive, strategic and long-term” (Harris et al, 2001, p. 28), and this appears to highlight low institutional priorities towards staff PD.

According to Stephens (2011), “work-based learning includes a range of worksite instructional activities ... [that] can provide ... teachers with valuable experiences related to the ... [areas] in which they teach” (p. 69). These workplace experiences provide an opportunity for the teacher to be immersed in the “current operational priorities, challenges and strategies of the host business” (Lynn et al., 2007, p. 36), thereby providing “teachers the opportunity to become fully engaged in day-to-day operations” (Stephens, 2011, p. 69). This environment “affords teachers an opportunity to learn about the workplace, by working directly with employers, gaining an appreciation for the business viewpoint and practicing ... skills that are necessary in their teacher role” (Brown, 2000, p. 3). According to McCarthy (2006), teachers “expressed a desire to make their teaching more meaningful to students” (p. 47), by “effectively connecting classroom learning to the world of work” (Stephens, 2011, p. 69). Indeed, TPI experiences can help teachers make classroom activities more relevant to students by increasing “their knowledge of jobs, career fields, and job opportunities in the community. They are able

to develop skills that meet industry requirements, and form strong partnerships with local businesses” (Stephens, 2011, p. 69). For teachers, successful workplace learning results in the “integration of workplace experiences and career and technical education curriculum” (Brown, 2003, p. 1). Indeed, according to the findings of a study by (Luft & Vidoni, 2000), following a TPI experience, teachers indicated a willingness “to modify their current classroom culture to more closely resemble a business setting” (p. 83).

Consistent with theories of workplace learning, PD activities are essentially social in nature, involving individuals in interaction with other professionals regarding learning to practice as “they learn about practice” (Coles, 1996, p. 152). For Mockler (2013), PD comprises “processes that teachers engage in when they expand, refine and change their practice” (p. 36), such as TPI experiences that may lead to improvement in the curriculum and the teaching repertoire. It is important to provide time and space for professional learning *in situ* during a placement, to enable deep learning. The teacher’s acquisition of new practical knowledge gained from their TPI experience needs to be subsequently transformed into information and resources that enrich the education experience. This process should maximise the synergy between the teacher’s expertise in teaching and learning, and the occupational knowledge gained through their immersion in an industry setting. Sustained engagement across the boundaries of different communities of practice can help to facilitate the exchange of appropriate organisational resources and ideas to enhance curriculum content, and student learning and assessment. Knight et al. (2006) view professional learning as “systemic ... [as it involves] ... an interplay between individuals and their environments” (p. 320). Consequently, professional development may be viewed “as the development of capabilities that occurs as a consequence of situated social practices” (Knight et al., 2006, p. 320).

How best to deal with VET teacher professional development is a perennial issue and the debates surrounding it are contentious (Saunders, 2012). Broadly stated, effective, professional development requires thoughtful planning followed by careful implementation with feedback to ensure it responds to educators' learning needs. Educators who participate in professional development then must put their new knowledge and skills to work". (Mizell, 2010, p. 10) However, VET PD initiatives are considered to be quite limited both in terms of their generic nature (Wheelahan & Moodie, 2011), and for their lack of relevance to the issues individuals face in their workplace. This is a significant point, since it raises questions about the extent to which PD is maintained to build meaningful professional knowledge (Tyler & Dymock, 2019; Tyler et al., 2016). Mockler (2013) argues that professional education has often been construed as "both a policy problem...as well as a solution to the problem of 'bad or ineffective teachers'" (p. 36), and further suggests that this is best understood in the context of contemporary policy discourses which are framed around notions of "teacher quality, teacher standards and accountability" (p. 36).

Although theoretical disciplinary knowledge taught within HE and VET business courses provides an academic frame of reference, industry has long been concerned that it is not always matched in terms of its relevance to current workplace practices, and for this reason, expects educators to be "given the appropriate professional development and relevant industry experience before and during the time they are required to teach..." (Australian Industry Group and Engineering Employers Association of South Australia, 2003, p. 31). Likewise, Eraut (2004) argues that educators within specialised disciplinary fields have minimal experience in the occupational practices they teach, as they are typically recruited into teaching as graduates, with little, if any professional industry

experience. Earlier research into VET teacher PD (Bradley, 2009; Schüller, 2013) accords with the view that PD activities are narrowly constructed, largely for the purpose of addressing audit compliance requirements and to meet departmental key performance indicator objectives, rather than focusing upon the development of teaching and industry-related skills. Mockler (2013) and Sachs and Mockler (2012) are critical of these performance management regimes that, since the 1990's, have come to characterise education systems internationally. These authors claim that such systems negatively impact teacher professionalism and identities, and “reinforce a rational technical form of teacher professionalism rather than a transformative one” (Mockler, 2013, p. 33).

In the context of VET, Down (2003) argues that these agendas of performativity highlight a “system struggling to give the appearance of compliance” (p. 5) through paper-based (as opposed to practice-based) quality assurance measures, that do little more than create a punitive environment that rewards compliance “at the expense of learners’ needs” (p.6). This is consistent with Ball’s (2006) analysis of the effects of educational ‘reforms’ around the world over the past several decades, and to what he describes as a “paradoxical” (p. 219) development insofar as

The increases in effort and time spent on core tasks are off-set by increases in effort and time devoted to accounting for task work or erecting monitoring systems, collecting performative data and attending to the management of institutional ‘impressions’. (p. 221)

Although an extended discussion of performativity agendas falls outside the scope of this thesis, these issues nonetheless emphasize several of the tensions that exist within the VET sector, and the importance of CPD in supporting educators in tackling the complex demands of their diverse work environments.

Another problematic in the context of VET PD, as briefly mentioned in Chapter 1, is the wearing down of teaching qualifications and industry expertise through the minimum

mandated requirement of a Certificate IV in Training and Assessment (TAE) VET teaching standard, and concerns regarding the competencies that are required to deliver AQF industry training packages effectively (Down, 2003). Seddon's (2008) observation of the "institutionalisation of the 'industry trainer' as the normative model informing investments in the development of teaching expertise and culture in VET" (p. 5), alludes to both the deconstruction and reconstruction of the VET educators' role, from that of 'professional to 'para professional'. Not only does this appear at odds with the increasing complexities of the environment in which VET (and HE) educators operate, but also seems to undermine the significance of their work, for as Chappell (2004, p. 9) aptly observes, the VET environment

requires practitioners who have a sophisticated appreciation of all of the pedagogical choices that are not only available to them, but which are also consistent with the context, clients and learning sites that make up the arena in which they work...successful implementation of VET programs relies on learning specialists who have expertise and a pedagogical orientation that they are able to deploy to meet the increasingly diverse requirements of clients. (p. 9)

The expanding role of educators over the past decade or more, particularly within the VET sector, is well noted within the literature (Guthrie, 2010; Harris et al., 2009; Misko, 2015) as they operate in a range of different contexts. VET teachers "deliver customised and relevant training in increasingly competitive markets and provide more work-based training and use new technologies" (Clayton et al., 2011, p. 1). The customised training develops partnerships at various levels ranging from "the delivery of single qualifications or skills-sets to a defined group of employees ... to the provision of other recognised training or non-accredited training" (Smith et al., 2017). They are additionally expected to participate in "marketing, management, and other administrative tasks and activities); and act as 'learning brokers' to learners, enterprises and providers" (National Centre for

Vocational Education Research, 2004, p. 5). Given the important role that educators perform, there is a vital need to strengthen relationships with industry through meaningful partnerships, and various forms of collaboration to help achieve “an appropriate balance of practical and theoretical skills [and knowledge]” (Guthrie & Dawe, 2004, p. 19). In the context of VET, Guthrie (2010) claims that attaining this balance is crucial

for learners and trainees, who want to make sure they are learning current skills, and also for enterprises-who want to have confidence in the currency of the VET system. Thus, one of the professional development issues that emerges time and time again is getting the balance right between maintaining vocational currency and fostering skills to improve teaching, learning and assessment practices. (p. 12)

Importantly, such matters hold equal significance within the HE sector in contemporary times, particularly when considered alongside broader national economic and social objectives (Commonwealth of Australia, 2008, 2012b, 2014).

Professional knowledge is often associated with formal modes of learning within classroom settings (Eraut, 2000), yet, there is strong evidence that it is largely gained from participation in workplace practices. Knowledge gained through participation in workplace practices has an important tacit dimension that addresses complex situations requiring the application of “complex knowledge that defies simple forms of representation” (Eraut, 2007, p. 404). Indeed, the multi-faceted forms of tacit knowledge acquired through participation in workplace practices so often challenges ‘best practice’ theories taught in formal classroom settings. This is consistent with Coles (1996), who asserts that “knowledge created in an academic setting does not automatically transfer to the world of practice” p. 153). In alluding to the theory-practice gap, Eraut (2007) argues that knowledge acquired through formal education “largely ignores the problems of developing and using such knowledge in professional contexts” (p. 154). Notwithstanding

these assertions, Newton et al. (2009) are uncertain about the reasons for this gap, suggesting that this may be either an unavoidable fact, or that it may relate to the differing cultures and approaches to learning in different locations. Nonetheless, these assertions are significant, particularly when viewed in the light of contemporary VET debates around CPD, teaching quality and teacher industry currency (Clayton & Guthrie, 2013; Clayton et al., 2011; Clayton et al., 2013; Guthrie, 2010; Guthrie & Clayton, 2010; Guthrie & Jones, 2018; Toze & Tierney, 2010; Wheelahan & Moodie, 2010). These debates strengthen the case for greater investment in CPD (of which TPI is one form), to build educators' understanding of contemporary industry practices relevant to the occupational disciplines they teach. However, there are many institutional and industry barriers and challenges in doing so (Clayton et al., 2013; Toze & Tierney, 2010).

Ramaley (2014) argues for forms of collaboration that will require educators to rethink their kind of work and to consider the impact of their own contributions to knowledge, and how they generate it to support students in acquiring the knowledge and skills needed to “work effectively with others to address complex problems” (p. 9). In a similar vein, policy discourses emphasise the need for innovation in teaching to meet industry's needs, and equip students for the complexities of changing work environments (Department of Education Science and Training, 2005; Mitchell, 2003; Organisation for Economic Co-operation and Development, 2014; Scott-Kemmis, 2017).

Internationally, there is strong argument for strengthening relationships between HE, VET and industry through closer forms of collaboration (Scott-Kemmis, 2017). Notwithstanding the need to improve communication across these sectors so that each may learn from the other, Cedano et al. (2010) claim there is “little effort” (p. 1) being made to do so. Curiously, this stands in contradiction to the increasing emphasis upon the

need for HE, VET and industry to support the development of knowledge and entrepreneurship - two themes which have gained increasing traction within HE and VET discourses in recent times (Organisation for Economic Co-operation and Development, 2014; Scott-Kemmis, 2017).

The concept of entrepreneurship carries different meanings. To illustrate further, one basic and more narrow definition of entrepreneurship describes it as “the act of creating a business or businesses while building and scaling it to generate a profit” (Oberlo, 2018). However, citing Timmons in the National Consortium for Entrepreneurship Education, 2012, Scott-Kemmis (2017) offer a broader definition which encompasses various human capacities such as (p. 15):

- initiating, doing, achieving and building an enterprise or organisation;
- the knack for sensing an opportunity where others see chaos, contradiction and confusion;
- the ability to build a ‘founding team’ to complement your own skills and talents; and,
- the know-how to find, marshal and control resources (often owned by others).

Taken in its broadest sense, entrepreneurship is a concept that seems to align with the focus of this thesis in some ways. For example, within the context of VET-HE teacher industry placement initiatives (discussed later in this chapter), there may well be opportunities for entrepreneurial activities that build upon existing individual and/or organisational capacities. This is consistent with the call for innovation in teaching to help meet industry’s needs, and equip students for the complexities of changing work environments (Department of Education Science and Training, 2005; Mitchell, 2003).

In its submission to an earlier Senate inquiry (Australian Industry Group and Engineering Employers Association of South Australia, 2003), the Australian Industry Group (AIG) emphasised the significant shift in workplace skills and the fact that these

were “crossing the traditional industrial boundaries between technical, informational technology, business and marketing” (p. 17). Citing significant structural changes and the emergence of new skill sets and patterns of working, the AIG has long required education systems to develop greater integration between teaching and learning programs to reflect and accommodate changing work practices and “ensure relevance” (Australian Industry Group and Engineering Employers Association of South Australia, 2003, p. 6) to industry’s continually changing needs, since “what may be relevant to an enterprise skills needs today may have no bearing on that same enterprise’s skills needs in five years’ time” (p. 7).

Clayton and Guthrie (2013) argue that although employers broadly acknowledge the need for educators to maintain their industry currency, this has become increasingly difficult in the face of “industry trends and technological changes that were constantly impacting on workplaces” (p. 28). Nonetheless, there is strong argument for building strategic alliances that will provide educators with a greater understanding of “how the workplace skill needs continually change” (Australian Industry Group and Engineering Employers Association of South Australia, 2003, p. 6), and give industry a greater understanding of the educational environment.

Paramount to this endeavour is the role of “appropriate professional development and relevant industry experience before and during the time [educators] are required to teach VET courses” (Australian Industry Group and Engineering Employers Association of South Australia, 2003, p. 31). This argument would appear to be equally relevant to the HE sector, yet, notwithstanding an abundance of literature on professional development for VET teachers, curiously, there is a dearth of literature on the same topic for HE educators, despite the fact that “the number of teaching focused academics in Australia

has increased from 755 in 2005, to 3212 in 2015, currently representing 7.2% of academic positions” (Department of Education and Training, 2016, as cited in Whelan, 2017, p. 173). As the number of teaching only academics has been estimated to reach 20% (Whelan, 2017) it would seem that TPI schemes may become a more important aspect of CPD in the HE sector.

From the discussion thus far, it is becoming clear that it will be through the ongoing development of individual and organisational capacities that Australia’s labour market needs will best be supported in the future. An important point of focus towards this endeavour is the need for greater investment in more strategically aligned CPD opportunities to strengthen HE and VET educators’ occupational and professional capacities. There are many different approaches to the ways in which professionals may learn in the workplace by drawing upon the expertise and knowledge of others. Despite the challenges of navigating “across strongly boundaried traditions of practice” (Edwards, 2010, p. 21), the knowledge gained by doing so may well be utilised in other settings, for “beyond what the social world projects is how individuals come to engage with, take up, adapt, adopt or transform what is being suggested” (Billett & Noble, 2017a, p. 211). This reflects the interdependent and socio-relational nature of occupational learning that necessarily occurs across working lives, by engaging with others who can provide access to resources and the knowledge to be learnt (Billett, 2000, 2004b, 2004c; Billett & Noble, 2017a; Wenger, 1998b, 2010).

TPI provides a means by which HE, VET and industry professionals may participate across multiple activity systems in communities of practice, to build their professional knowledge, skills, and competencies. Features of TPI are next considered, along with the benefits and limitations of this form of CPD.

Part 5: Teacher Placements in Industry (TPI)

TPI, the focus of this thesis, is a form of work integrated learning that provides educators with access to legitimate forms of peripheral participation in an occupational field that is relevant to the disciplines they teach, to build their knowledge of contemporary industry practices. Notwithstanding the claimed benefits of TPI, the implementation of this form of CPD is problematic. Drawing from a range of discourses in the field, the key features, aims and objectives of TPI are identified, and its benefits and limitations are considered in this section.

Studies of contemporary approaches to workplace learning through site-based education (Choy et al., 2016) draw attention to the “social, economic and personal outcomes” (p. 335) that partners to such enterprises strive to achieve. Accordingly, there is acknowledgement of the need for active collaboration and engagement with key professionals across organisational boundaries, in order to harness and facilitate “learning opportunities within the constraints of given sites” (Choy et al, 2016, p. 334). This is no less relevant in the context of TPI, for as a site for workplace learning, TPI holds considerable potential as a means for enriching educators’ knowledge and individual capacities within “settings of joint activity” (Koschmann, 1999, p. 308).

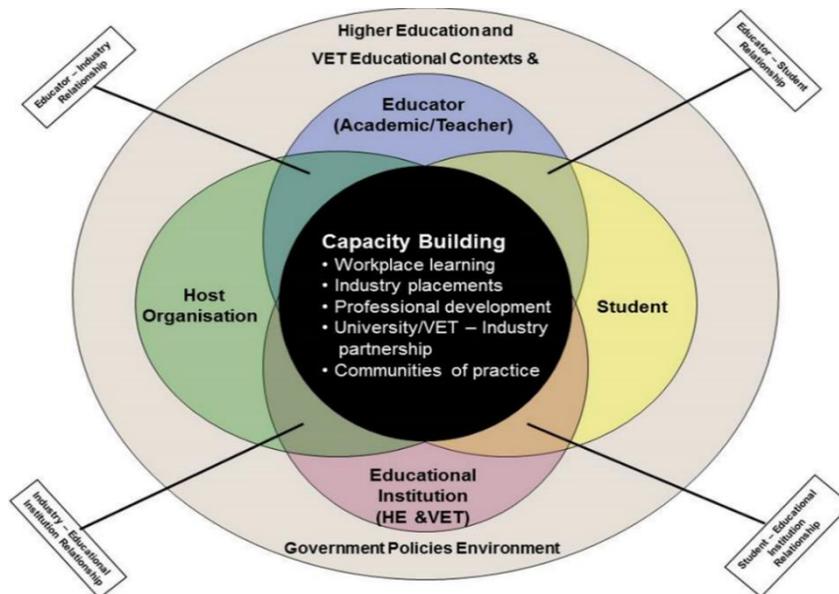
Site-based education has become an increasingly common feature of workplace learning for secondary, VET and HE students through work-integrated learning (WIL) programs. Interest in WIL is driven by the rapid pace of change and technological advancements, together with a growing demand for professionals who can adapt and support industry and economic transformations (Goulter & Patrick, 2010). WIL experiences are acknowledged as activities that contribute to the development of work-related skills and knowledge (Coates, 2009; Crebert et al., 2004) by integrating formal

learning with occupational practices through industry/education partnerships such as student ‘industry placements’. Of course, the ultimate aim of such an enterprise is to upskill students by making their learning more relevant to workplace practices. However, the focus of this thesis is on TPI, which is but one means for educators to develop more industry relevant curricula, with a view to producing more employer-ready graduates (Patrick et al., 2009; Whelan, 2017).

TPI offers VET and HE educators a form of peripheral participation (Lave & Wenger, 1991) in workplace activities across diverse industry settings and communities of practice (Wenger, 1998b). Furthermore, it is a legitimate form of CPD within the mandated VET teacher industry currency requirements under Element 1.4 of the AQTF (Toze & Tierney, 2010).

TPI is a term used to describe a professional development opportunity for educators that aims to “enhance ... [their] ...industry knowledge and skills to enable them to be better teachers” (Van der Bijl & Taylor, 2019, pp. 39-40). It is an activity that involves the educator in “real occupational tasks and practices under the guidance...of established members of a community of practitioners” (Hughes et al., 2007, p. 157). TPI may also be viewed as a “relational learning approach ... [and] ... enabler of knowledge creation, transfer, interpretation, and utilization” (Kunttu, 2017, p. 15). Figure 2.12 depicts a capacity building centred approach to TPI, through what should be strategically developed forms of engagement across joint enterprises.

Figure 2.12: Teacher industry placement stakeholders and relationships (adapted from: Schüller & Bergami, 2012, p. 32)



It can be observed that HE and VET TPI activities operate in HE and VET educational contexts and government policy environments. Central to TPI activities is capacity building with the previously discussed notions of workplace learning, CPD, academia-industry partnerships and communities of practice. Government controls exert a degree of influence on the operations of TPI – largely through bureaucratic regulations and funding arrangements. The key stakeholders are the teacher; the tertiary educational institution; the host firm; and the student. The relationships between the key stakeholders are shown by the coloured overlapping ovals.

Since TPI activity involves the mediation of actions and ideas between educational and business practitioners, it offers considerable potential for expansive learning that may lead to mutually beneficial outcomes across institutional-organisational boundaries. One particular form of expansive learning is the kind Tuomi-Gröhn and Engeström (2003) refer to as “developmental transfer” (p. 30). This typically occurs “at and around the boundaries between multiple activity systems” (p. 30). In the context of TPI, it would involve HE and VET institutions working collaboratively in partnership with local

organisations. The effects of such boundary encounters may be measured against the degree to which it enables effective coordination of resources and practices “without burdening others” (Wenger, 2010, p. 8). This is challenging, to say the least, particularly when one activity system has a different object-motive to the other, yet this is also a reflection of the inherent contradictions within all activity systems, as discussed earlier in this chapter. According to Virkkunen et al. (2010), professional learning relies on collaboration between working life and educational institutions, yet, studies of interprofessional work (Edwards & Kinti, 2010) highlight the challenges of “interprofessional collaboration” (p. 126) across boundaries, and the need for well negotiated and coordinated approaches to tasks. Collaboration involves vigorous forms of exchange and negotiation between participants who “each must have sufficient motivation to commit time and resources to the activity at hand ...[and] ... a solid understanding of the ... motives, constraints and resources of the varied participants” (Brown & Cole, 2002, p. 230). In the context of TPI, this translates to setting agreed upon goals and objectives prior to the TPI activity commencing; establishing measurable outcomes appropriate to the needs of the educator, institute, and industry partner; and determining the allocation of tasks, and the resources required.

The Benefits of TPI

Various international studies of TPI over the past several decades have highlighted their multiple benefits for teachers, the host organisation, educational institution, and students (Bergami, Schüller, & Vojtko, 2011; Bergami et al., 2013; Brown & Chalmers, 1990; Haigh, 1997; Ireland et al., 2002; Klein, 2001; Schüller, 2013; Toze & Tierney, 2010; Whelan, 2017). The benefits of TPI include:

- Participation in TPI initiatives is claimed to improve teaching and learning practices by increasing teachers' awareness of the knowledge and skills, and particular needs and expectations required by industry, and this can be shared with their students (Brown & Chalmers, 1990; Haigh, 1997; Klein, 2001; Schüller, 2013);
- Teachers may use their disciplinary knowledge in a consulting role to support industry processes and systems (Ireland et al., 2002; Schüller, 2013);
- Offering opportunities for mutually beneficial projects between the educational institution and host organisation (Ireland et al., 2002; Klein, 2001; Whelan, 2017);
- Acting as a driver of change in terms of developing staff knowledge and skills in new areas, and enriching career development (Leary, 2005);
- Strengthening of pedagogical practices from the knowledge and new understandings gained from time spent in an industry setting; enhancing teacher's professional identity through renewed confidence in the disciplines taught; an increasing commitment and enthusiasm for modifying curriculum, assessment and learning outcomes in related fields of study (Haigh, 1997; Ireland et al., 2002; Schüller, 2013; Whelan, 2017);
- Providing opportunities for students to be involved in industry research projects that add value to host organisation (Whelan, 2017);
- Strengthening relationships between the educational institution and industry partner, and this may influence sponsorship for industry internships (McGavin, 1996; Whelan, 2017);
- Bringing abstract business concepts to life (Ireland et al., 2002);

- Providing opportunities to share curriculum content with host organisation staff; increasing host participant awareness of what students are learning; identifying gaps in curriculum content; and for the industry host partner to contribute industry specific resource materials to the educational institution, to enrich the curriculum (Klein, 2001; Whelan, 2017);
- Giving access to more relevant careers information, linking with the host organisation through guest speaker presentations to students, and accessing a potential pool of graduates to support the host organisation's workforce needs (Brown & Chalmers, 1990; Ireland et al., 2002);
- Bringing an unbiased view of organisational culture, practices and systems – the teacher is able to bring a fresh perspective to existing business practices, and this may benefit the host organisation partner (Ireland et al., 2002; Whelan, 2017); and
- Enhancing the reputation of the host organisation; improving teacher and student knowledge of industry practices, and providing a social and community benefit (McGavin, 1996).

However, previous research focused on teacher experiences, and differs from the focus of this thesis that centres on the perceived value of TPI schemes from the perspectives of managers within HE and VET, and industry managers who, because of their position, are considered to be principal actors in facilitating these activities, as “leaders and managers play a key role in supporting professional and workforce development” (Guthrie, 2010, p. 15).

Notwithstanding the acknowledged benefits and some support for TPI within government policy frameworks (Department of Education, 2019; TAFE Development Centre, 2009), there are known challenges associated with this form of CPD that make its

implementation difficult. The next section draws from some of the findings of previous research that has exposed various challenges and limitations of TPI.

The Limitations of TPI

Mitchell (2003) argues that because TPI outcomes are frequently ill-defined, they are difficult to evaluate, particularly in relation to the development and/or maintenance of teacher industry currency. This highlights a weakness in the implementation of TPI that is investigated later in this thesis. Drawing from some of the experiences of VET ‘business studies’ practitioners’ who had participated in TPI initiatives (Schüller, 2013), various tensions between TPI policy and practice were brought to light. For example, despite stated institutional support for the development and maintenance of industry currency through TPI, policy implementation at a departmental level was found to be driven more by audit compliance requirements to satisfy departmental key performance indicators, rather than being genuinely motivated by a sense of management responsibility for longer-term staff development and capacity building (Schüller, 2013). At an institutional level, internal recognition and endorsement of teachers who have undertaken an industry placement appears weak, and explicit promotion of TPI opportunities lacks visibility. As such, opportunities to participate in TPI do not appear to be maximised. Without the support for sustaining the network with TPI host organisations, prospects for future TPI and/or other forms of collaboration decline, with consequential ‘missed’ opportunities for developing mutually beneficial goals and objectives that may support workforce development across institutional and organisational boundaries. Additionally, teachers wishing to undertake an industry placement were not well supported in finding a willing host organisation, as the onus for locating a suitable industry partner usually fell upon them. Consequently, teachers must

rely on their existing business networks to negotiate the TPI arrangement, or alternatively, canvass employers directly to identify who may be willing to participate in a TPI initiative. However, without a pre-existing relationship, this form of ‘brokering’ is difficult, and likely to meet with resistance. The responsibility for teachers to identify and engage a suitable TPI host organisation goes some way in reflecting the expanding role of VET practitioners (Harris et al., 2005; Whelan, 2017), as previously mentioned. The issues identified so far generally point to unsettled matters in relation to TPI policy, and to what Farmer and Rojewski (2001) refer to as policy-making “out on a limb” (p. 179). In other words, notwithstanding the acknowledged benefits of TPI, policy support for it does not appear to have been fully founded upon empirical studies.

Other factors that problematise the implementation of TPI include the management and manoeuvring around a myriad of planning and administrative arrangements; restrictive workplace environments (Fuller & Unwin, 2004) that make teacher integration into the host organisation difficult; funding; resource and teacher-work flow disruptions; and various other risk management concerns. These tensions are juxtaposed between policy discourses that encourage education-industry partnerships to build industry currency (Queensland Skills and Training Taskforce, 2012; TAFE Development Centre, 2009), and institutional practices that limit opportunities to do so. Significantly, the shortcomings identified above reflect the challenges of boundary crossing (Engeström, 1987; Fuller & Unwin, 2004; Kerosuo & Toiviainen, 2011; Wenger, 1998a), as previously discussed. Yet, notwithstanding this, the benefits of TPI far outweigh the challenges, as Meadon (1990) explains

Knowledge of a company’s management techniques, of marketing, financial management, the chance to develop curriculum materials and laying the foundation for a link with a local firm [are] just a few positive spin-offs [of teacher industry placements] (p. 28)

TPI planning considerations

Woodhill (2010) succinctly states that “social learning requires conscious design and facilitation – it does not happen by accident” (p. 64). Likewise, the success of TPI activities can only be maximised where adequate preliminary planning has occurred among the three key stakeholders, that is, the teacher, the educational institution, and the host organisation. Planning should include robust negotiations around the goals and objectives of the initiative; the job role and anticipated range of tasks to be undertaken by the educator on placement; resource allocations; and the duration of the TPI.

The intersection between management practice and the need to understand sociological patterns of human interaction is an important aspect in terms of TPI activities. The complex nature of these activities requires not only an understanding of the technical management skills, but also an understanding of how humans interact with each other when confronted with workplace environments that are potentially quite different to those they are accustomed to. As an example, the attitudes and approaches of the education environment are quite different to those of an entrepreneurial setting. The cultural difference in these workplace settings is a significant factor that shapes the outcomes of TPI initiatives.

It is important for the manager to be aware of the workplace cultural differences and attitudes the teacher may be exposed to, and mitigate risks through processes such as frank and open pre-placement negotiation discussions, and an induction period to ensure an easier integration into the organisation. This is likely to have more beneficial outcomes as the more integrated the teacher is in the host partner’s processes, the more likely they are to learn more, but also, it is more likely that they may be able to make a meaningful contribution into the host partner’s processes. This is also an important consideration for

the education manager who must ensure that the placement is fit for purpose and that it benefits their institution, as well as the teacher. This underscores the importance of pre-placement negotiations, which is discussed later in this thesis.

Another important element in the pre-planning stages will be to address health, safety and other security and intellectual property concerns. Such negotiations should involve the business educator, their institutional manager, and the host organisation manager so that each party clearly understands what the other is seeking, and to explore how this may be achieved. Consideration should also be given to what educators may have to offer the host organisation, for example, through PD workshops for employees, or other activities that may add value to the industry firm. Such planning ought to involve a preliminary visit to the host organisation well in advance of the placement, to clarify needs and expectations. Brown & Chalmers (1990) found that “employers were often unclear about what was expected of placements and saw little opportunity to negotiate the purposes with the teachers” (p. 5). A further important consideration is one of scheduling, as more often than not, TPI initiatives are organised during semester break periods, a time when teachers are likely to be preparing their following semester’s teaching load. The optimum duration of a placement was also considered by Brown and Chalmers (1990). Whilst short-term placements (1-2 weeks) are appropriate for an introduction into industry culture and practices, such timeframes are considered too short for industry projects involving curriculum development. Longer placements may be challenging for the host organisation due to work shadowing requirements, because of the strain they place on host firm employees. Ling and Mackenzie (2001) claim that the effectiveness and success of CPD requires opportunities for “negotiated meanings and understandings” (p. 9). Thus, an

interactive and dialectical relationship between key stakeholders to the process is critical, and to reiterate, this ought to include

Comprehensive information about what the professional development providers are able to offer... so that the teacher and school can negotiate participation based upon a clear understanding of the program aims. Mutual engagement requires objectives and expected commitment and outcome[s]. (Ling & Mackenzie, 2001, p. 9)

The notion of an ideal TPI placement opportunity is indeed dependent on the context in which it happens, influenced by the business discipline and the participatory willingness and ability of the parties involved (that is, the teacher, the education manager, and the host firm manager), as well as the **negotiated** placement goals and objectives.

Conclusion

The literature reviewed in this chapter has focused on aspects of theories relevant to workplace learning that have applications to TPI activities. TPI is a strategy to address the gap between theory and practice by building educators' knowledge of relevant contemporary industry processes through participation in workplace learning activities *in situ*. However, for TPI activities to occur, there must be commitment from the three key stakeholders involved (the teacher, educational institution, and host organisation). Therefore, I argue that managers, because of the nature of their role, play an essential part in facilitating or hindering TPI opportunities. It is difficult to imagine how a placement could otherwise occur without such management support, because of a number of 'hurdles' that need to be overcome, such as teacher backfilling, access to a host organisation, and funding. Therefore, I consider managers' views of TPI schemes to be an important aspect of the whole process.

The literature provides convincing arguments for the development of education-industry partnerships, and are framed within the context of supporting national agendas for workforce and skills development. The role of HE and VET is crucial in this regard, and TPI initiatives offer one means of forging such linkages to support these broader national goals. Yet, TPI initiatives are not without their challenges both in terms of the resources needed to support such activity, and when viewed against increasingly performative work environments, and the difficulties businesses face in adapting to the pressures of constant change. Even so, the need to build educators' knowledge and skills capacities has never been greater, to meet the demands of the knowledge economy. The literature on workplace learning, knowledge work, and knowledge creation emphasises the increasing demand for innovation and training that builds occupational knowledge. Likewise, the value of workplace knowledge is well established as a significant resource to be drawn from people and organisational systems and processes, to build capacities. At the same time, the literature acknowledges the inherent challenges and complexities of negotiating around the boundaries of different workplace terrains. As a site (sight) for workplace learning, this thesis explores managers perspectives of the value of TPI.

This study has been supported by several socially situated theories of workplace learning, as shown in Figure 2.4. These draw attention to the complexities and various elements that influence learning in the workplace, including what is learned, and who learns what. Theories of activity, the expansive-restrictive workplace continuum, and communities of practice are closely aligned to each other, and although not specific to TPI processes, these theories can be employed to gain a better understanding of the complexities involved in workplace learning within a TPI environment. As a form of crossboundary encounter, the implementation and operationalisation of TPI initiatives

requires careful negotiation and coordination of resources across different sites of practice. Indeed, as I argued before, it is because of managers' crucial role in decision-making, that their views concerning the value of TPI activities, and their possibilities for expanding or transforming existing workplace practices, will offer new insights and understandings. Given that managers have control over aspects of workforce development, the expansive-restrictive workplace continuum, including the notion of workplace affordances, provides a means for evaluating environmental factors that may enable or hinder opportunities for TPI initiatives. TPI comprises a legitimate form of peripheral participation that offers opportunities for workplace learning through mutual engagement, and the sharing of a repertoire of knowledge across joint enterprises. In the context of this study, managers views of TPI initiatives can provide valuable insights into what kinds of boundary encounters may be realised through their support of such initiatives, and what kinds of knowledge may be produced and shared through such encounters.

Having considered the most relevant literature to this thesis, the details of the research design and methodology are provided in the next chapter.

Chapter 3: Research Methodology and Design

*“Knowledge is a path in the forest where it is possible to see ahead
and sideways but the rest is in darkness.”*

(Resca, 2009, p. 3)

~ ♦ ~

Introduction

Resca’s statement (2009) encapsulates the challenges facing a researcher seeking a methodological pathway for the conducting of their research. This was indeed my experience as navigated my way through a bewildering array of methodological traditions, attempting to locate an appropriate research framework for this study.

I begin the chapter with an explanation of the aims and objectives of this exploratory study, and identify the research questions that have guided it. This is followed by a discussion of epistemological foundations that have informed and guided my approach to, and selection of a suitable research methodology that I believed would best fit the needs of this study. Next, I discuss the research methods employed in this study, and reasons for their choice. Ethical/quality considerations are then explained before reaching the conclusion.

Aims and Objectives of the Study

The aim of this exploratory study was to obtain opinions from managers of business disciplines within HE and VET, and managers from private firms (non-sector specific⁶), about the value they place on TPI activities for HE and VET teachers, in the context of

⁶The reason for not targeting any specific industry sector is that by their very nature, business disciplines cut across all facets of business operations, regardless of products or services. It would be difficult to imagine how a business could operate without key aspects of what business disciplines teach, such as HR, marketing, management, accounting, and so on. Additionally, I did not want to limit data gathering to one particular sector because as they operate in different environments, this may have caused response bias. Finally, to ensure a likely response rate, I did not want to limit the potential number of respondents.

building individual and organisational capacities across educational and industry sites. For the purpose of this exploratory study, managers have been defined as individuals that:

- within the HE and VET sectors have responsibility for both unit/course delivery and direct staff reporting; and
- for private firm managers, the only criteria was direct staff reporting responsibilities.

I consider managers' perspectives to be important because of the role they have in an organisation. Managers have responsibilities for their staff professional development. Consequently, they are able to either facilitate or hinder TPI, as a form of CPD activity, by either supporting it, or not, depending on the value they perceive for their department or organisation. It is difficult to imagine how TPI schemes may successfully function in the absence of management support, particularly where funding for such activities may be involved. Notwithstanding previous research into teachers' experiences of TPI (Brown & Chalmers, 1990; Ireland et al., 2002; McGavin, 1996; Schüller, 2013; Whelan, 2017), there is a dearth of literature on managers' opinions and the value they place on TPI initiatives. Managers' views, obtained from this exploratory study, should provide greater insight and understanding about the TPI process.

The underlying premise I put forward, is that educational institution and private enterprise investment in TPI schemes creates space for sharing knowledge, skills and ideas that support expansive forms of learning. TPI carries the potential to forge mutually beneficial projects that contribute to capacity building across HE/VET-Industry workplaces. Such forms of engagement may help bridge the gap between pedagogy and contemporary business practices; stimulate discussion about what industry knowledge and skills are required; and promote confidence that work-based teaching and learning

within HE and VET is current and relevant to industry's needs. This exploratory study was guided by the overarching research question: In what ways may TPI contribute to the development of individual and organisational capacities? Five subsidiary questions were then developed to guide to find answers to this question.

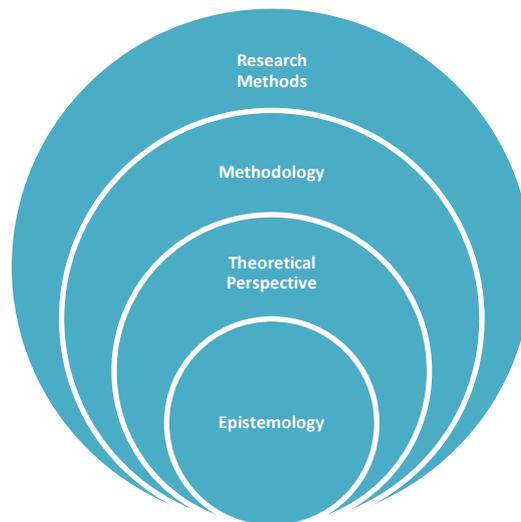
1. Do managers see any value in TPI initiatives?
2. What kind of learning may be needed, by whom and for whom?
3. What are the challenges of implementing and supporting TPI activity?
4. How might TPI opportunities be improved to provide greater benefits to all stakeholders; and
5. How might we know that TPI meets individual and organisational goals?

These questions were explored from the views of managers, and through the conceptual framework of workplace learning theories (Billett, 2008, 2009; Engeström & Sannino, 2010; Eraut, 2004; Fuller & Unwin, 2004; Malloch et al., 2011; Wenger, 1998b), to bring other voices to the table (Mills, Bonner, & Francis, 2008) to broaden our understanding about the complex and situated nature of workplace learning,

In seeking a suitable method to conduct this research, the decision as to which path to follow was initially approached through a review of literature within the field, (Bettis & Gregson, 2001; Creswell, 1998; Creswell & Plano-Clark, 2011; Cronholm & Hjalmarsson, 2011). In order to give direction to this study, I drew from Crotty's (1998) four basic elements of the research process, as illustrated in Figure 3.1.

Figure 3.1 encapsulates important issues to be considered prior to undertaking any research. I viewed each of these elements as important stepping-stones towards developing an appropriate research design to support the aims and objectives of this study.

Figure 3.1: The four basic elements of any research process (adapted from Crotty, 1998).



These elements, and their relationship to the design of this study, are discussed in the remaining sections of the chapter.

Philosophical Assumptions and Theoretical Perspective

Underpinning all research endeavours lie certain assumptions about the nature of truth and reality (ontology), and of knowledge and how it is formed (epistemology). These ontological and epistemological perspectives are shaped by competing variables, multiple realities (Mills et al., 2008), individual value systems (Charmaz, 2009; Kim, 2003), and/or converging worldviews (Crotty, 1998) drawn from individual human experiences. These influence our approaches to conducting research to acquire new knowledge.

In approaching this research, I found myself drawn to postpositivist and constructivist perspectives. Although postpositivist research is scientifically driven, unlike positivist approaches to research, it claims that “absolute truth is nowhere to be found” (Panhwar et al., 2017, p. 253), and whilst not seeking to refute scientific/quantitative methods of research, it “emphasises a proper understanding of the directions and perspectives of any research study from multi-dimensions and multi-methods”. In essence it justifies

alternative paradigms for exploring facts, and “respecting and valuing all findings as the essential component for the development of knowledge” (Panhwar et al., 2017, p. 254).

Post-positivism “describes an approach to knowledge, but it is also implicitly an assessment of the nature of reality. Thus, it is both an epistemological and an ontological position” (Fox, 2008, pp. 660-661). Drawing from a realist positioning, post-positivism acknowledges that claims of truth and reality must be subjected to a wide examination to assist capturing reality as closely as possible, albeit never perfectly, since objectivity remains a “regulatory ideal” (Guba & Lincoln, 1994, p. 110). As a research paradigm, it is “more accommodating towards qualitative data” (Bryman, 2008, p. 18), for it holds that research findings that fit with existing knowledge, and satisfy critical commentary from peers are “probably true” (Guba & Lincoln, 1994, p. 110), unless otherwise falsified. These comments apply to my study, as the literature previously referred to demonstrates that there are known benefits and challenges arising from TPI activities, however the gap in existing knowledge lies in *not* knowing how HE, VET and industry managers view such activities, and the value they place on them. Their views are therefore a critical component of my research.

Although the establishment of objectivity is a universal characteristic in the realm of science, social researchers view all knowledge about the world as being “constructed by human consciousness through language” (WritingCommons, 2020). This idea highlights the intersubjective nature of our human existence, embodied in our thoughts and interactions, our understandings of what we know, and what we don’t know; and from our ways of seeing the world through both our own, and others’ experiences. As such, “objectivity may be an impossible ideal” (Khatwani & Panhwar, 2019, p. 134) for researchers to attain. Constructivism does not advocate any single methodology to

generate knowledge, for it holds that new knowledge and understanding emerges from the researcher and participant being “interactively linked so that the findings are “literally created as the investigation proceeds” (Guba & Lincoln, 1994, p. 111). Research conducted through a constructivist lens aims for “an interpretive understanding” (Charmaz, 2011, p. 366) by using an interactive and reflexive form of inquiry. In other words, the researcher enters the studied field accepting that individual constructions of meaning “are subject to continuous revision, with changes most likely to occur when relatively different constructions [of meaning] are brought into juxtaposition in a dialectical context” (Guba & Lincoln, 1994, p. 113). The constructivist paradigm disallows the existence of an external objective reality independent of an individual from which knowledge may be collected, or gained. Instead, it holds that each individual ‘constructs’ knowledge from his or her experience, through social interaction. This research paradigm shifts the focus from explaining phenomena typical in the natural sciences, to an emphasis on understanding, which is deemed more appropriate for investigating phenomena in the human sciences” (Costantino, 2008, p. 117).

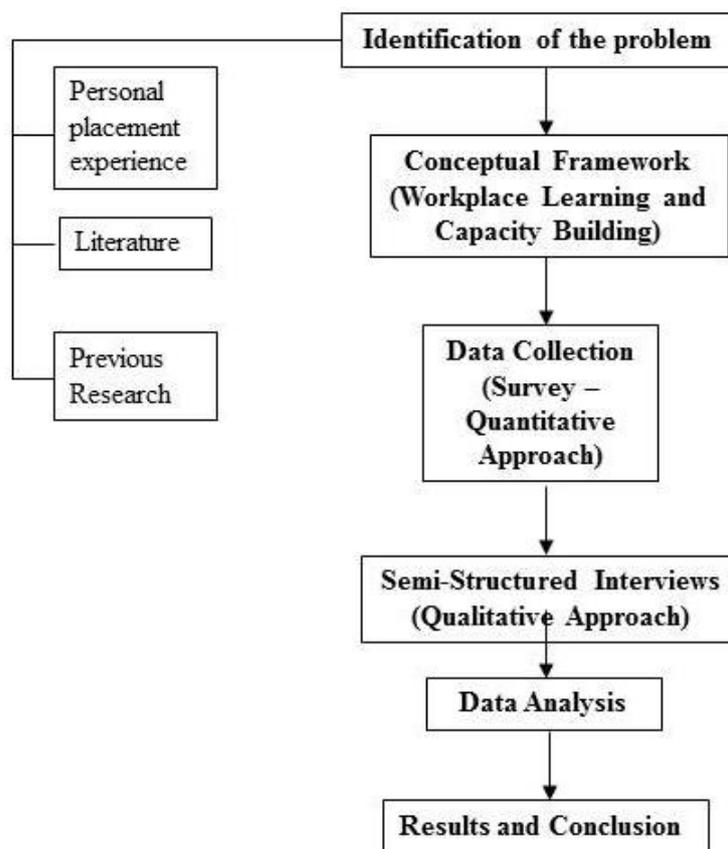
This research has been approached predominantly from a relativist-constructivist lens that acknowledges the convergence of realist-post-positivism and relativist-constructivism (Denzin & Lincoln, 1994; Guba, 1990) as discussed earlier. My construction of workplace learning through TPI is framed within the visual and physical realm – for what happens ‘on-site’ provides ‘insight’ into the ways by which individual and organisational capacities may be developed across HE, VET, and industry sites of practice. Through this research, I aim to explore how this may happen. As a researcher, I acknowledge that I bring my own academic background and previous experience of TPI into this study, yet note that I have endeavoured to remain as objective and unbiased as

possible through the methodological approach and procedures that I employed in order to make my research more justifiable, reliable, and verifiable.

Methodology

Methodology deals with the researcher's strategic "plan of action, process or design lying behind the ... use of particular methods" {Crotty, 1998 #636@3. My approach to this study was influenced by a number of factors, as shown in Figure 3.2.

Figure 3.2: Development of research methodology



I firstly identified the problem as a result of personal experiences through participation in three industry placements, and also previous research. The literature assisted in identifying issues related to TPI activities, and I also identified gaps, that led me to the formulation of ideas that interested me in pursuing matters further. I thought about my conceptual framework next, and I based this on notions of workplace learning

and capacity building through TPI to benefit both individuals and organisations. The conceptual framework was discussed in Chapter 2. In order to obtain information, I decided to conduct an exploratory research, using empirical data. I took a two-step approach. The first step was a quantitative approach, involving the distribution of two online surveys to identified target audiences, as discussed earlier in this chapter. My goal was to obtain information from managers about their perceived value on the notion of TPI. The second step was a qualitative approach that required me to conduct semi-structured interviews with volunteer participants, to obtain deeper and richer data. The interview questions were formulated bearing in mind the information sought in the surveys. I subsequently conducted analyses of the quantitative and qualitative data, with the results leading me to draw a range of conclusions and recommendations. A discussion of the quantitative aspects of my research are provided in the next section.

Quantitative Research

Quantitative research assumes a positivist stance that uses scientific forms of observation and experimentation based on objectivity, logic, and deductive reasoning. Quantitative methods stems from rationalist and empirical traditions (Brewer, 2001; Bryman, 1984; Popper, 2005) that aim “to solve major practical problems, search for law-like generalizations, and discover precise causal relationships through statistical analysis” (Plack, 2005, p. 226). Such research methodologies are characterised by a larger random number of samples that use formal research instruments to collect numerical data that is analysed using a broad range of statistical tools (Farmer & Rojewski, 2001).

There are various strengths and weaknesses of quantitative research designs as summarised in Table 3.1. In my exploratory study, I noted their application and I offer comments below about the key items.

Table 3.1: Strengths and weaknesses of quantitative research designs (adapted from InaterAction.org, 2015, p. 1)

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Study findings are generalizable to the population about which information is required; 2. Samples of individuals, communities, or organizations can be selected to ensure that the results will be representative of the population studied; 3. Structural factors that determine how inequalities (such as gender inequalities) are produced can be analysed; 4. QUANT estimates can be obtained of the magnitude and distribution of impacts; 5. QUANT estimates can be obtained of the costs and benefits of interventions; 6. Clear documentation can be provided regarding the content and application of the survey instruments so that other researchers can assess the validity of the findings; 7. Standardized approaches permit the study to be replicated in different areas or over time with the production of comparable findings; and 8. It is possible to control for the effects of extraneous variables that might result in misleading interpretations of causality (although this can be challenging in the natural settings of evaluations). 	<ol style="list-style-type: none"> A. Many kinds of information are difficult to obtain through structured data collection instruments, particularly on sensitive topics; B. Many groups are difficult to reach, but the problems are often greater for QUANT data collection methods; C. Self-reported information obtained from questionnaires may be inaccurate or incomplete; D. There is often no information on contextual factors to help interpret the results or to explain variations in behaviour between [groups] with similar economic and demographic characteristics; E. The administration of a structured questionnaire creates an unnatural situation that may alienate respondents; F. Studies are expensive and time-consuming, and even the preliminary results are usually not available for a long period of time; G. Research methods are inflexible because the instruments cannot be modified once the study begins; H. Reduction of data to numbers results in lost information; I. The correlations produced (e.g., between costs and benefits, gender, and access to services or benefits) may mask or ignore underlying causes or realities; J. Untested variables may account for program impacts; K. Errors in the hypotheses tested may yield misimpressions of program quality or influential factors; and L. Errors in the selection of procedures for determining statistical significance can result in erroneous findings regarding impact.

In relation to the strengths:

- Item 2. I carefully chose a particular profile, with specific characteristics that would ensure only qualifying participants could provide valid information. I believed this would lead to the generation of information that would contribute to a generalisable set of data, from which I could identify patterns, to derive themes for further analysis; and

- Item 6. I believe I have structured the survey in a manner appropriate to enable others to replicate this in different environments, such as in other nations.

In relation to the weaknesses:

- Item B. I found it difficult to recruit participants, as information available in the public domain was difficult to extract, and it was also quite difficult to identify potential participants with the right profile characteristics for this study. HE participants were comparatively easier to find than their VET or industry counterparts;
- Item F. The process was quite time consuming, especially at the participant recruitment stage. A considerable amount of time was also devoted to the data coding and analysis, and consequently, it took me a long period of time from data collection to eventual writing up. However, the research was not particularly expensive in money terms, as the majority of the resources were my time and effort. As individuals were not given any monetary or other incentives to participate, research costs were kept at a minimum;
- Item G. The inflexibility of surveys is acknowledged, as once the survey has been distributed, changes are not possible, for these would potentially invalidate previously collected data. In order to mitigate such a possibility, I pilot tested the survey before its release, to ensure that it was reasonable, appropriate, and relevant to the target populations; and
- Item H. I agree that reducing results to numbers may cause loss of information. To mitigate loss of information, where appropriate, I allowed for free text responses in order to get richer data. Additionally, as my intention was to obtain as much information as possible from participants, my strategy was

always that of a mixed-methods approach, with the quantitative analysis only being one part of the research process – the other being the qualitative component, which is discussed in the next section.

Qualitative Research

The ontological assumption lying at the heart of qualitative studies is the multiple subjective nature of reality as perceived by the researcher and their participants (Farmer & Rojewski, 2001). Qualitative research methods are characterised by the collection of data from “relatively few cases that are usually in natural settings” (Brewer, 2001, p. 108). The researcher typically draws data from their fieldwork that may be in “a program, an organization, a community, or whatever situations of importance to a study can be observed, people interviewed, and documents analysed” (Patton, 2002, p. 4). Qualitative studies involve the researcher in an analytical process requiring them to examine the words, interactions and/or “records created by people” (Berg, 2008, p. 829). According to Hitchcock and Hughes (1995), a qualitative orientation is useful in educational settings because it provides for a more holistic framework of investigation. By drawing from the “qualifications, actions, ideas, values and meanings through the eyes of participants” (Hitchcock & Hughes, 1995, p. 26), the researcher is able to seek emerging patterns of meaning and offer interpretations that bring new insights. This supports a richer depth of study that brings a deeper level of understanding (Caruth, 2013) of the subject matter or phenomenon under investigation, including issues that were perhaps not previously considered (Alston & Bowles, 2003).

Strategies for collecting qualitative data include in-depth, semi-structured interviews; direct observations; and/or the analysis of written documents (Patton, 2002). Semi-structured face-to-face interviews offer flexibility for the interviewer to take more

initiative in responding to the “perceptions and priorities” of the interview participants. This is particularly useful for exploratory, investigative studies (Dudley, 2005) as it allows the researcher more scope to pursue “hunches [and] improvise questions” (Marlow, 2001, p. 158) through the use of open-ended questions; various probing techniques “to elicit further information or build rapport through the researcher’s use of active listening skills” (Ayres, 2008, p. 810). Creswell (2014) argues that qualitative research is particularly useful in situations “where the topic has not been previously explored with “a certain sample or group under study” (p.20), as is indeed the case with the participants in this study. In qualitative research, triangulation is used as a strategy to “add rigor, breadth, and depth” (Farmer & Rojewski, 2001, p. 100) to the study – unlike quantitative studies that rely on quality criteria such as “internal and external validity, reliability, and objectivity” (Farmer & Rojewski, 2001, p. 100). Notwithstanding the advantages of qualitative methods, there are also disadvantages. These include: the comparatively more difficult interpretation, generalisation and duplication of results (Caruth, 2013); the additional time needed to analyse the data (Griffin, 2004); the problems of having the research accepted by peers, practitioners or policy makers (Griffin, 2004); the increased complexity in making quantitative predictions; and the greater likelihood of personal research bias as “complete objectivity continues to be an elusive goal in social sciences” (Khatwani & Panhwar, 2019, p. 140). In order to counter-balance some of the disadvantages of qualitative studies, techniques of reflexivity are used to achieve objectivity as far as is reasonably possible (Khatwani & Panhwar, 2019).

Mixed-methods

Although more complex in design, mixed-methods studies are increasingly used to address the limitations of singular quantitative or qualitative research (Caruth, 2013).

Mixed-methods allows the researcher to “mix or combine quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study” (Johnson & Onwuegbuzie, 2004, p. 17). Notwithstanding the contrasting paradigmatic positions of quantitative and qualitative studies, as discussed earlier, the differences of their positions, and their different strengths allow for greater flexibility in data collection and analysis, and various forms of triangulation that may be established (Denzin & Lincoln, 1994; Farmer & Rojewski, 2001). This is useful for validation purposes in terms of determining the consistency and reliability of evidence (Mertens, 1998). The researcher can check multiple data sets for comparisons, and seek patterns of convergence in results through complementary, overlapping, or different facets of information that may also reveal contradicting trends and patterns that provide new perspectives (Creswell, 2008). Furthermore, mixed-methods allows the researcher greater freedom in pursuing hunches, improvising questions and responding “to the perceptions and priorities” (Alston & Bowles, 2003, p. 116) of participants, and expands the scope and breadth of the study, thereby enabling richer data to be gathered (Creswell, 2008).

Various models of mixed-methods offer additional opportunities to investigate “both objective and subjective worlds of human phenomena” (Farmer & Rojewski, 2001, p. 114) using simultaneous (parallel), or phased (sequential) qualitative and quantitative frameworks (Farmer & Rojewski, 2001; Morse, 2010). Typically, in sequential designs, the data analysis “proceeds independently for both the quantitative and qualitative phases” (Creswell et al., 2003, p. 187).

Notwithstanding the advantages of mixed-methods research, such approaches hold particular challenges because of their design complexities (Morse, 2010). Their processes are more time and labour intensive, and there are additional costs associated with this

type of design, due to the two separate types of research involved (Farmer & Rojewski, 2001; Morse, 2010). In the context of this study, the major challenges I encountered were: the time spent in developing the surveys and the semi-structured interview questions; the challenge of having these approved through various university processes (candidature application, candidature and ethics approval); the considerable time taken to identify and recruit participants; the time spent analysing the quantitative data; the challenges of arranging suitably mutual times for conducting interviews; and the time and effort spent in the transcription and analysis of the qualitative data. Notwithstanding these challenges, the financial outlay was negligible as the surveys were distributed electronically, and the interviews were virtually all conducted by telephone. The few interviews conducted face-to-face took place at a local level with marginal travel costs associated.

In using a mixed-methods approach, I considered the different kinds of phasing (such as sequential and concurrent) of the qualitative and quantitative components of the study, and the level of dominance I would apportion to each. I also considered data analysis techniques for the quantitative and qualitative components, including strategies for integrating the results of each into the overall findings of the study (Morse, 2010). To maintain the rigour of the study, each (Quan-QUAL) method should be respected, irrespective of the “direction of the theoretical drive” (Morse, 2010, p. 348). I analysed the quantitative and qualitative data sets separately to retain “their methodological character” (Cronin et al., 2008, p. 573). I aimed to demonstrate the rigour of this study by keeping the Quan-QUAL components “separate until the point of interface” (Morse, 2010, p. 348), that is, when comparing the interview data with the survey data. I

conducted each phase of the study separately. This added detail and contributed “to the narrative description of the results” (Morse, 2010, p. 348).

Design choices were weighed against the advantages and limitations of different methodological approaches, and the needs of the study, in terms of gathering the best possible sets of data that would help address the research questions, and aims of this study (Johnson & Christensen, 2000). Design considerations were also influenced by the need for a methodological approach that would fit with the theoretical drive of the study (Johnson & Onwuegbuzie, 2004; Morse, 2010; Onwuegbuzie & Combs, 2010, 2011); and by my desire to take a middle ground position to avoid “the subjectivity and error of naïve inquiry” (Schwandt, 1994, p. 119). For these various pragmatic reasons, and in view of the limitations of using a singular quantitative or qualitative research method, I chose a sequential two-staged (Quan-QUAL) mixed-methods research design as the methodological framework for this study. The quantitative component allowed for the sampling of a larger population first, in order to test variables and then to explore the views of participants in more depth, with a smaller population, during the qualitative stage (Creswell & Plano-Clark, 2011).

The research methods/design that were employed in this study are explained next.

Research Methods & Design

In this section, I discuss the particular elements of the mixed-methods approach, that is, the surveys (Quan) and the follow-up semi-structured interviews (QUAL).

Surveys

Surveys are a common research instrument used in quantitative studies; and considered useful for policy or program planning, evaluating program effectiveness, and supporting research planning generally (Balnaves & Caputi, 2001). They are also

recognised for enabling objectivity to be maintained through distance between the researcher and respondent; and for allowing for the possibility of external checks upon the survey; and the application of advanced statistical methods to address issues of causality (Bryman, 1984). Survey findings are more easily generalised to comparable populations (Bettis & Gregson, 2001). Creswell (2003) identifies quantitative approaches to research as useful for “cause and effect thinking; reduction to specific variables and hypotheses and questions, use of measurement and observation, and the testing of theories” (p. 18).

The first stage of this exploratory study involved the collection of primary data from online surveys. This provided a basis for quantitatively evaluating HE, VET, and industry managers’ perceptions of the value of TPI across a range of variables.

Initially, I developed two multi-paged electronic surveys for this study, copies of which are in Appendix 1. One survey was for both HE and VET managers, and the other was for industry managers. The structure of the surveys was informed by a review of methodology literature. The development of relevant survey questions to elicit useful data, was informed by various sources. I drew from VET teacher professional development discourses (Clayton et al., 2013; Guthrie, 2010; Guthrie & Clayton, 2010) and a wide corpus of interdisciplinary literature in the field of workplace learning; and from the findings of earlier research of VET and HE teachers’ TPI experiences (Bergami, Schüller, & Cheok, 2011; Bergami, Schüller, & Vojtko, 2011; Bergami et al., 2013; Schüller, 2013); together with my own experience of participation in TPI activities (2005-2012); and from my 20 years of experience as a business studies teacher within the tertiary education sector. This background knowledge and insight was valuable in terms of assisting with the framing of the survey questions, and in gathering useful data from

respondents that would meet the needs of my research. The survey questions were designed to obtain information around key topics relevant to TPI schemes, including:

- knowledge of the TPI concept and previous involvement in such initiatives;
- the existence of policies that may support TPI schemes;
- potential benefits of TPI;
- challenges in supporting TPI activities, including funding considerations;
- the potential creation and transfer of knowledge through TPI opportunities;
- the link between TPI activities and curriculum enhancement;
- academia-industry partnerships through TPI activities;
- reasons for supporting TPI initiatives; and
- how TPI activities should be evaluated.

The questions were amended to suit their particular target audience, as they operate in different (academia-industry) environments.

Sampling

Purposeful sampling was used to guide the selection of suitable participants on the assumption that their views would reasonably represent these populations at large, and that the data generated by them, would provide a balanced view.

Snowballing techniques were also used, where possible, to assist me in accessing new participants, by having respondents invite their colleagues to participate in this study, through the contact information provided in the ‘information to participants’ in the header portion of the surveys.

Given that this study adopted an exploratory design, and the data was collected from a purposive sample, the generalisation of results could be impaired. Further studies of a

descriptive design nature would be needed as follow-up research to obtain more robust conclusions.

Survey distribution

Before distributing the survey to potential participants, I pilot tested this with three individuals, one from each of the cohorts, to ensure that the questions were reasonable, relevant, acceptable, and appropriate to my target populations. These individuals, by way of their involvement, were automatically excluded from further participation in the research.

A total of 879 electronic survey links, with an explanatory note, were distributed by email using Victoria University's Qualtrics system, to HE (n=854) and VET (n=25). Potential HE participants from business disciplines were identified through searches on university web pages. Emails were sent directly to these individuals. The distribution of surveys to VET proved to be more problematic. Unlike their HE counterparts, VET information is not easily discernible from their websites. Consequently, I resorted to making 60 phone calls to TAFE institutions across Australia, to centralised numbers, trying to obtain details about potential participants who fitted the profile for this study. Following my telephone approaches, only 25 TAFE institutions allowed me to send the electronic survey to a centralised administration email address, leaving it up to the individual who received the email, to then distribute it further to relevant staff within their organisation. As I was unable to obtain staff details directly, I consequently cannot know how many potential participants received the survey.

I also relied on industry associations to distribute the electronic survey to industry managers. This strategy involved contacting industry groups by phone, and requesting their support in distributing the online survey link to their members. As these

organisations used their own channels of information to disseminate the electronic survey link, it is not possible to know how many were distributed. Industry associations who were contacted are listed below:

- Australian Chamber of Commerce and Industry (ACCI);
- Australian Industry Group (AIG);
- Australian Institute of Management (AIM);
- Financial Services Institute of Australia (FINSIA); and
- Human Resource Institute of Australia (HRIA).

A total of 32 validly completed surveys were initially organised by sorting raw data into different industry sector groups, with each group representing units or variables that were relatively similar to one another, based on industry sector (HE, VET and private enterprises, and organisation size). Data sets were analysed deductively, and plotted and processed with the support of SPSS software (Balnaves & Caputi, 2001).

Analysis of Quantitative Data

Data analysis was limited to frequencies and cross-tabulation analysis. This was informed by techniques available for research under exploratory research design (Hair et al., 2013). Survey data was analysed using statistical descriptive analyses to help establish frequencies and the magnitude of patterns and trends – a sample of the coding used in these processes is in Appendix 5. This data was then summarised in tables and presented in a meaningful way. The information drawn from the survey data assisted with the framing of questions and themes for the next (qualitative) component of this study, that is, the semi-structured interviews.

Semi-structured Interviews

The second stage of this sequential mixed-methods design involved the collection of qualitative data through a series of semi-structured interviews with managers from the education sector and private enterprise. A copy of the key themes and questions is provided at Appendix 2. Survey respondents were invited to participate in a voluntary personal semi-structured interview by disclosing their details at the end of the online survey. I subsequently contacted each survey respondent who expressed their willingness to participate in a semi-structured interview.

A total of 23 interviews were conducted across the selected populations, as shown in Table 3.2.

Table 3.2: Number of interviews conducted

Selected Population	Actual Interviews Conducted
HE managers	6
VET managers	7
Industry managers	10
Total	23

Semi-structured interviews provided a means to probe further and obtain richer and more in-depth and meaningful information. Participants disclosed a number of work-related examples that were useful in arriving at a greater understanding of institutional/organisational constraints that may make the realisation of TPI opportunities problematic. At the same time, they also provided a number of benefits, as they saw value in TPI activities, and some additionally proposed solutions they thought may make TPI initiatives more workable within their workplace. Their views helped build a deeper level of understanding of the issues that influence workplace learning through TPI schemes, and an opportunity to “respond to the perceptions and the priorities of the respondent”

(Alston & Bowles, 2003, p. 34) in ways which are not replicable through quantitative methods.

Interviews were scheduled for approximately 30-45 minutes duration. Due to the wide geographical spread of the sample, it was anticipated that face-to-face interviews would likely eventuate for Melbourne-based participants only, as travel, and associated costs for interviewing participants nationally, would have been prohibitive. In such circumstances, it proved more economical to conduct telephone interviews.

An Interview Schedule pro-forma was developed, a copy of which is in Appendix 3. This was used to facilitate the interview process, and included the name of each participant, date, interview time/duration, interview location, and key themes that I wished to explore. A series of semi-structured questions were also added to each theme that I wished to explore, and used as a prompt for initiating, building, and concluding the conversations with participants effectively. The interviews were supported by a narrative form of dialogue that encouraged a fluid conversational style, which enabled the development of “unexpected themes” (Mason, 2002, p. 62), and a fuller representation of participant perspectives on TPI schemes.

In my aim to provide truthful and reliable data. I verified the interview transcripts with a small random sample of participants. Although verifying interview information is not a perfect solution, nevertheless it demonstrates my efforts to provide as truthful and reliable reporting on the data as possible.

The next section identifies the key themes which were developed to support the semi-structured interviews held with HE, VET, and industry managers.

Interview themes

To ensure accuracy and reliability of the thematic process, data was generated and coded under the subsidiary research questions listed earlier in this chapter, using seven themes as outlined below.

Theme 1: Participants' demographic profiles and work trajectories

This theme captured preliminary background information to assist with the demographic profiling and categorisation of each participant. To recall, the study required that potential participants needed to have direct reporting staff as one of their qualifying criteria, and for HE and VET managers, they additionally needed to have, at minimum, unit or course delivery responsibilities. Information was sought in relation to their age, gender, qualifications, management functions and their work trajectories over time.

Theme 2: Managers' knowledge of TPI schemes

Theme 2 aimed to identify what managers may already know about TPI schemes, and to establish whether or not they had ever been asked to support such activity in the past. If so, the intention was to identify what kinds of administrative arrangements and/or resource support was provided to staff, and what outcomes were achieved through TPI activity they may have authorised.

Theme 3: Knowledge and skills required by HE/VET educators

Theme 3 explored managers' views regarding what kinds of knowledge and skills are required by educators, to prepare students and support industry needs for 'work ready' graduates. The intent of this theme was to address subsidiary research question number 2.

Theme 4: Perceived benefits of TPI

Theme 4 explored managers' views of what benefits may be gained for all stakeholders, that is, teachers, the educational institutions and host organisations, and aimed to address subsidiary research question number 1.

Theme 5: Challenges of implementing and supporting TPI

Theme 5 explored managers' views of the likely barriers/constraints associated with TPI initiatives. These may be internal (able to be controlled by the relevant organisation), and/or external (outside the control of the organisation, such as, compliance with the regulatory environment). This theme aimed to address subsidiary research question number 3.

Theme 6: Arrangements and duration of TPI

Theme 6 investigated what organisational arrangements were needed to support the effective implementation of TPI, as this has obvious implications for resource planning. The aim of this theme was to address subsidiary research question number 4.

Theme 7: Evaluating TPI outcomes

Given claims of the nebulous nature of TPI outcomes (Mitchell, 2011) and the difficulties of evaluating their effectiveness in terms of building individual and organisational capacities, this theme explored managers' views of the ways in which TPI activity could be evaluated. This theme aimed to address subsidiary research question number 5.

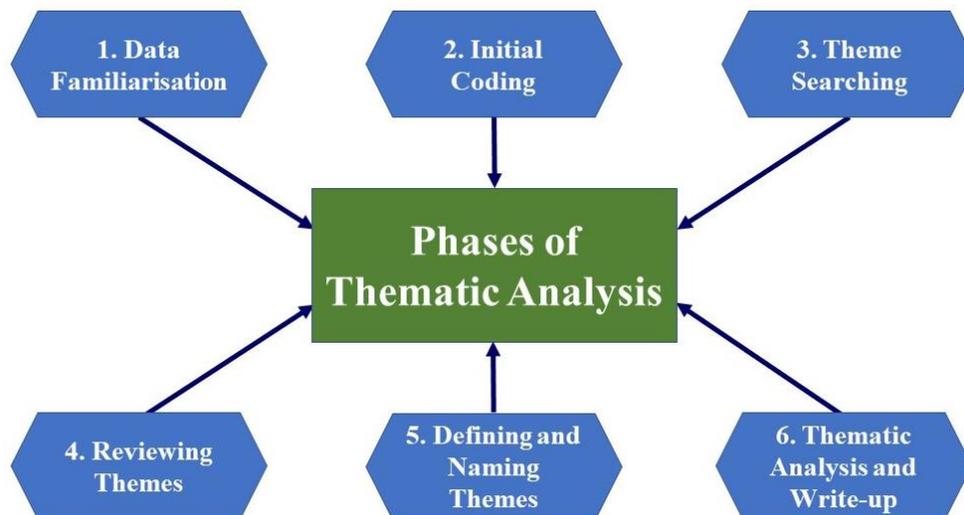
Interview Data Analysis

The semi-structured interview data were first organized and prepared for analysis by transcribing the interview audio recordings, verbatim, within forty-eight hours of each interview. Each transcription took me an average of 10 hours. This process was an

important stage as it enabled me to become more familiar with the whole of each interview. As I listened and transcribed, I made preliminary notes to record my thoughts on the emerging issues within the data, and note any patterns that may assist in the emergence of themes to use in the analysis

In analysing the interview data further, I drew from some of the traditions of constructivist grounded theory analytic tools and techniques (Charmaz, 2006), and also from thematic analysis (Braun & Clarke, 2006), the phases of which are shown in Figure 3.3.

Figure 3.3: The six phases of thematic analysis (own elaboration)



Thematic analysis is a process for “identifying, analysing and reporting patterns (themes) within data” ... [and requires] ... ongoing reflexive dialogue” (Braun & Clarke, 2006, pp. 79-82) and judgement to determine a theme, and consider its importance to the research question in terms of the number of times particular themes are articulated by the respondents.

Following selective grounded theory and the thematic analysis techniques, participants’ responses were more critically analysed using theoretical sensitivity and

inductive, interpretive, and reflexive forms of reasoning (Charmaz, 2006). Data analyses was supported by ‘initial’ and ‘focused’ coding techniques – a sample of the coding process used is in Appendix 5. This was carried out by initially moving quickly through the transcripts, and highlighting key themes and nuances. The data were “de-contextualised [and] re-contextualised” (Creswell, 2008, p. 154) through an iterative process of constant comparative analyses (Creswell, 2008, p. 433). I defined, and later re-defined the interview transcripts as I continued to analyse participants’ responses. The use of memo writing (memoing), questioning techniques, note-taking, and the coding of the data formed a critical aspect of this process. This involved interrogating the data and defining their characteristics and properties as the analyses proceeded (Charmaz, 2006; Woods et al., 2002). I endeavoured to draw meaning in each segment of the data, by paying attention to explicit and implied statements, to gain further insights into the emerging views and concerns raised by participants (Charmaz, 2006; Glaser & Strauss, 1967) that were relevant to the research questions, in order to develop “linkages and a story line that makes sense” (Marshall & Rossman, 2006, pp. 161-162). This process of memoing – explicating, explaining and defining the characteristics and properties of the data (Lempert, 2007) - formed part of the process of analysing the responses in a way that brought meaning and coherence to the patterns and themes (Charmaz, 2006; Denzin & Lincoln, 2005; Glaser & Strauss, 1967). In conveying the research findings, a narrative, descriptive style of writing was used to give voice to participants’ perspectives, and this was supported by the integration of selected quotations from the interview transcripts (Charmaz, 2006; Creswell, 2003). The combination of thematic analysis and selective grounded theory analytical tools and techniques helped me to code the data into more

meaningful groups to derive a deeper analysis, and draw meaning through inductive/interpretive forms of reasoning.

Ethical Considerations

This study was undertaken in accordance with Victoria University's Ethics Application No. HRE14-305. Ethics approval was obtained prior to the commencement of any research activities. Throughout all stages of the study due care was taken to address the needs of participants. It was important to build a relationship of trust with individual participants. This required sensitivity to their potential concerns about participating in this low-risk study. To minimize the risk of harm, increase the quality of the data and research findings, and enable informed consent, individuals were fully informed in writing of the study. For the surveys, the header portion contained information to participants outlining the purpose, aims and objectives of the study, as well as procedures for maintaining confidentiality and anonymity of participants and their organisations, such as publishing data in aggregate form only. Informed and voluntary consent was therefore implied by respondents completing and returning the survey online.

Participants volunteered to be interviewed by providing their details through the online survey. Those willing to be interviewed were subsequently contacted in a timely manner to arrange a mutually suitable time to conduct the interview. Prior to conducting each interview, participants were requested to sign in advance, a 'Consent form for participants involved in research' (a copy of this form is provided in Appendix 4). The consent included a permission to audio record the interview. Participants were also provided with a statement advising them of the likely inconvenience/risk factors associated with interview participation, and informed of their right to withdraw from participation at any time (Creswell, 1998). Consequently, informed and voluntary consent

to participate in the interview was established beforehand. Interviews were conducted in a private room either by telephone or face-to-face. Consistent with the principles of confidentiality and anonymity identified above, participants were advised that data would only be published in aggregate and pseudonyms would be used.

Validation of the Research

Validation of the research conducted is a critical element since it is the basis upon which the integrity of the research is to be judged. I used a mixed-method in order to apply the technique of triangulation to improve the validity of the conclusion. In this exploratory study, various forms of triangulation were used to validate and maintain the integrity, reliability, and credibility of the research findings (Creswell, 2003; Denscombe, 2010). Triangulation involves using two or more methods of data collection in the study of a particular phenomenon, and is considered a key element of any research (Newby, 2014) as it provides a means for “viewing things from more than one perspective” (Denscombe, 2010, p. 346). Drawing largely from Creswell’s (2008; 2003) work, methodological triangulation was established through the use of a sequential (QUAN-QUAL) research design to enable detailed analyses of multiple sets of data drawn from the surveys, and semi-structured interviews. These were compared for complementary and/or conflicting patterns/trends, and added depth to the research findings by providing additional insights and new perspectives (Creswell, 2008), and a “coherent justification for themes” (Creswell, 2003, p. 196). Data triangulation compared the sets of data, as appropriate, across multiple parameters, such as: geographical areas (VIC; NSW; ACT; QLD; SA; WA; NT; TAS); firm size (micro; small; medium; large); and organisational contexts (HE; VET; and private enterprise sectors).

Sampling procedures also provided an additional form of triangulation (Guion et al., 2011) through the purposeful selection of managers with knowledge and expertise within the HE, VET, and private enterprise sectors. As explained earlier, their views were considered to be important in finding answers to the research questions because of their leadership roles, and the possible influence they may have over decision-making related to TPI activities. Further triangulation was achieved by piloting the online surveys with one individual from each cohort (HE, VET, and industry). To recall, this helped to ensure that the questions were relevant and acceptable to these cohorts. The process of ‘member-checking’, as previously explained, enabled a number of individuals to verify the accuracy of their interview transcript, and to check specific themes based on my interpretation (Creswell, 2003). Notwithstanding this, there was no over-reliance on member-checking because participant beliefs are often subject to change, making this form of validation fundamentally unreliable (Birks & Mills, 2011). Theoretical sensitivity was drawn from my work background (as an industry manager, a teacher, and a TPI participant), and through an in-depth review of workplace learning literature. The application of various analytic tools and techniques, and adoption of a reflexive/dialogical form of inquiry added further weight to support the validity, credibility, and reliability of the findings in this exploratory study. Additionally, peer reviews from colleagues familiar with the study and research processes provided additional support by driving me to more critically evaluate my methods and interpretations. A formal audit trail was another important process used to establish the rigor, validity and credibility of this study (Creswell & Miller, 2000). This was demonstrated by following relevant approval processes, and through ongoing, formal, systematic reviews of the research, by research

faculty staff, and academics from Victoria University and other universities, as part of its quality assurance processes, as outlined in the next section.

Conclusion

This chapter has discussed the methodological and research design framework for my exploratory study on HE, VET, and industry managers' perceptual value of TPI initiatives. The chapter was foregrounded by positioning the study within the broader socio-economic context of post-secondary education policy and workforce development to build individual and organisational capacities. Research aims and objectives were provided, together with the questions guiding this study, that aimed to discover whether managers saw value in TPI initiatives; the kind of learning that might be needed, by whom and for whom; the challenges of TPI initiatives; the opportunities for improving the TPI status quo; and how TPI might be evaluated. Consideration was given to particular philosophical/theoretical frameworks and these influenced the methodological approach selected for this research. For this study, a constructivist/interpretivist stance was adopted within a mixed-methods design that employed both quantitative and qualitative approaches to gather data for analysis. Quantitative data was analysed using simple tabular analysis and cross-tabulation, and qualitative data was analysed using a thematic, interpretive/reflexive approach that employed select grounded theory analytical tools to interpret and draw meaning from participants' responses. Ethical issues pertaining to the study were discussed, and the methods used to maintain validity, reliability and credibility of the research were identified.

Having discussed the research methodology and design, the next chapter provides an analysis and discussion of the survey findings.

Chapter 4: Managers' Perspectives of TPI (Surveys)

This chapter discusses the data obtained from the survey, the first data gathering method employed in this research, and analyses it using simple statistics. Managers of **business disciplines** in educational institutions and those from private firms across Australia were identified and invited to participate in this study. This category of participants was purposely chosen because of their leadership roles in their respective organisations. To recall, HE and VET managers were qualified for participation in this exploratory study by having responsibility for both unit/course delivery and direct staff reporting. For private enterprise managers, the qualifying criteria was direct staff reporting responsibilities. It is typical for managers to have responsibilities for staff CPD and, because of their role in an organisation, they have the potential to initiate and/or organise TPI activities.

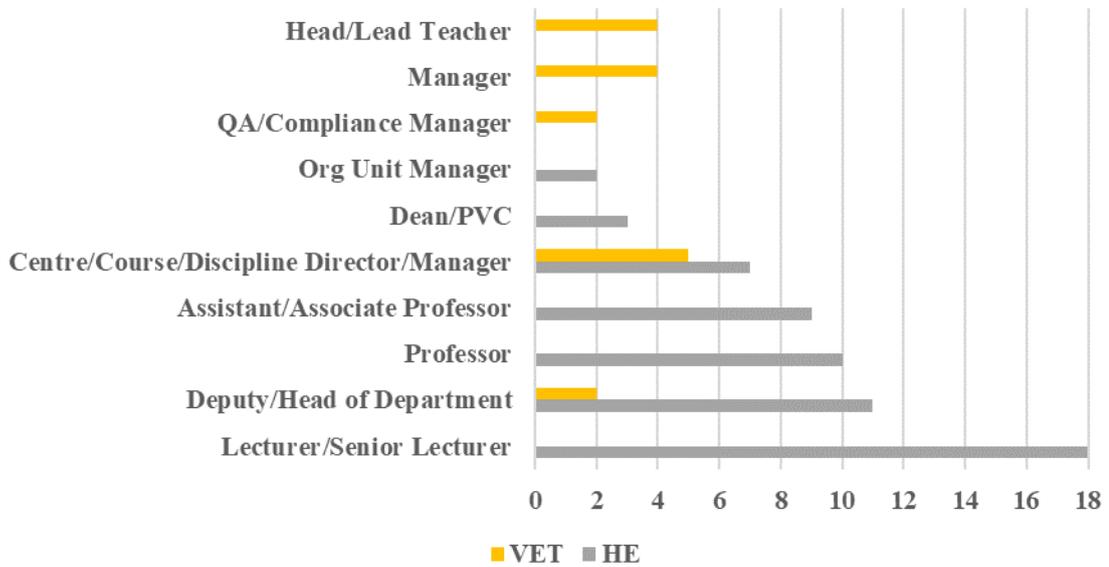
The survey focused on an exploration of the views held by these managers about their perceived value of TPI. This first step in data gathering was designed to provide a scoping of the managers' views and support of TPI.

Data was gathered through the distribution of two electronic surveys, via Victoria University's Qualtrics. The same survey was distributed to both HE and VET managers and a separate survey was distributed to industry managers. HE and VET respondents were identified through searches of available public domain information on relevant educational institutions. Locating HE business disciplines personnel with direct staff reporting responsibilities was difficult due to the inaccessibility of this level of information on institutional webpages.

A total of 854 survey links with informational material were distributed by email to business disciplines university academics across Australia, inviting their participation. Using snowballing techniques, participants were invited to pass on the email to other colleagues if they deemed it appropriate. A total of 60 responses from HE business disciplines managers, at various levels in their organisations were received, as shown in Figure 4.1.

In the VET sector, publicly available information directed enquiries to a central number that acted as a “gate keeper”, and, consequently, it was left up to them to distribute the survey information email and link to their colleagues, as appropriate, essentially using a snowballing technique. Despite these challenges, a total of 25 survey links were distributed to VET institutions across Australia, with 19 valid responses received. The comparatively more targeted approach used for VET, in order to distribute the survey link meant the potential participant was already “pre-qualified” (already identified as a manager), unlike their HE counterparts. Similar to the HE responses, VET business disciplines participants held varying levels of management across their institutions, as shown in Figure 4.1. I consider that the different levels of management provide a balanced view in relation to TPI activities. It is a typical result of organisational structures that front-line managers are ‘closer’ to their direct reporting staff, consequently, they ought to be more attuned to the CPD requirements of the staff they are responsible for. Therefore, this band of managers may be categorised as ‘identifiers’ in the context of TPI, which is a form of CPD. The more senior managers offer another perspective insofar as they are the individuals who are more likely to have a different vision and an approval authority to commit the organisation and its resources in becoming involved in TPI initiatives.

Figure 4.1: Management levels of HE and VET business disciplines participants



(own elaboration)

Potential industry participants were identified through a blend of personal contacts, and industry representative bodies, including the Victorian Chamber of Commerce and Industry, the Australian Institute of Management, The Australian Industry Group, and the Human Resource Institute of Australia. Using a snowballing technique approach, the industry representative bodies were asked to distribute the informational email and survey link to their membership. A total of 32 responses were received, and the results are discussed later in the chapter.

The data is presented and discussed in two main sections: HE and VET managers first, followed by private enterprise managers.

HE and VET Managers

A total of 79 valid responses (from 879 surveys distributed to both HE and VET) were received from HE (n = 60), and VET (n = 19) managers. For the purposes of analysis, the HE category includes public, private and dual sector organisations, as the latter typically

provide a lesser percentage of their offering as VET programs (Moodie, 2011), and the VET category includes TAFE and RTO organisations.

The survey respondents collectively accounted for direct supervision of 1819+ HE and VET staff (a mixture of full-time, part-time, and casual) and 249+ employees in industry, thereby making a contribution to existing knowledge regarding aspects of TPI, that do not appear to have been the focus of prior research in Australia.

The gender of respondents was skewed towards males. In HE, males (n = 39) accounted for 65% and females (n = 21) accounted for 35%, which is consistent with the findings of Wallace and Marchant (2011), who claim that “women are still underrepresented in Australian university administrative management” (p. 577), and this is supported by Winchester and Browning (2015), who reported that “women held 31 per cent of senior positions” (p. 269). In VET, a similar pattern prevailed with males (n = 11) accounting for approximately 58%, and females (n = 8) accounting for approximately 42%. This appears to be slightly lower than the proportion of women in management positions for the population as a whole, that being, 52.2% in 2018-19, as “women are concentrated in ... Education and Training” (Workplace Gender Equality Agency, 2018). It is difficult to make further comments on the gender distribution in this sector because “little is known about the demography of the VET workforce” (Coates et al., 2010, p. 3).

The age distribution of HE and VET respondents is summarised at Table 4.1. In aggregate terms, it can be noted from Table 4.1 that the largest proportion of respondents is in the 50-59 age range (41.8%), followed by the 40-49 age range (27.8%) and the 60+ range (20.3%). The VET sector appears to have a younger workforce profile, as evidenced

by the lower percentages in higher age groups, and the higher percentages in the younger age groups shown in Table 4.1.

Table 4.1: HE and VET age distribution

Institution	Age				Total (%)
	18-39 (%)	40-49 (%)	50-59 (%)	60+ (%)	
HE	4 (6.6%)	17 (28.3%)	26 (43.3%)	13 (21.7%)	60 (100%)
VET	4 (21.1%)	5 (26.3%)	7 (36.8%)	3 (15.8%)	19 (100%)
Totals	8 (10.1%)	22 (27.8%)	33 (41.8%)	16 (20.3%)	79 (100%)

(HE n = 60; VET n = 19; percentages rounded to the nearest one decimal point) (own elaboration)

Although the reasons for the younger age profile of VET managers is not known, one possible explanation may be the comparatively lower barrier to entry for teaching in the VET sector. Given the typical university requirements of one qualification above the level at which one teaches (Victoria University Policy Library, 2018), for HE this would be at least 4 to 5 years of education, that is, a Masters degree requirement as a minimum to teach undergraduates. In the VET sector, there is a similar requirement. In addition to the mandatory Certificate IV in Training and Assessment, an occupational/discipline qualification one level above the one that is taught is required, for example, a Diploma (which is typically achieved within a year) to teach at Certificate IV level. A lower threshold to entry (a one year, or less, Diploma versus a three-year undergraduate, plus a two-year Masters) means that VET teaching can potentially start at a younger age, comparatively accelerating the career path to a management role.

The years of working experience of respondents have been summarised at Table 4.2, where it can be noted that in both the HE and VET sectors, the majority had 20 years, or more, working experience. The longer periods of working experience (above 10 years) are skewed in favour of the HE sector, whereas the opposite applies for the VET sector.

In aggregate terms, the respondents account for an estimated total number of years of working experience of between 1363 and 1464+.

Table 4.2: Years of working experience

Institution	Number of years working experience			
	<5	5-9	10-19	20+
HE	0 (0%)	2 (3.3%)	13 (21.7%)	45 (75%)
VET	2 (10.5%)	3 (15.8%)	2 (10.5%)	12 (63.2%)

(HE n = 60; VET n =19; percentages rounded to the nearest one decimal point) (own elaboration)

In relation to the length of employment and period of employment in the current position, as shown in Table 4.3, curiously, all VET respondents reported that they had been in the same job since joining their organisation, and the situation with HE was only marginally different. It seems there is almost an internal homeostatic career path, with little change in job occupation. However, as career choices are outside the scope of this thesis, further comments are not offered in this respect.

Table 4.3: HE and VET years of work with current employer and current job role

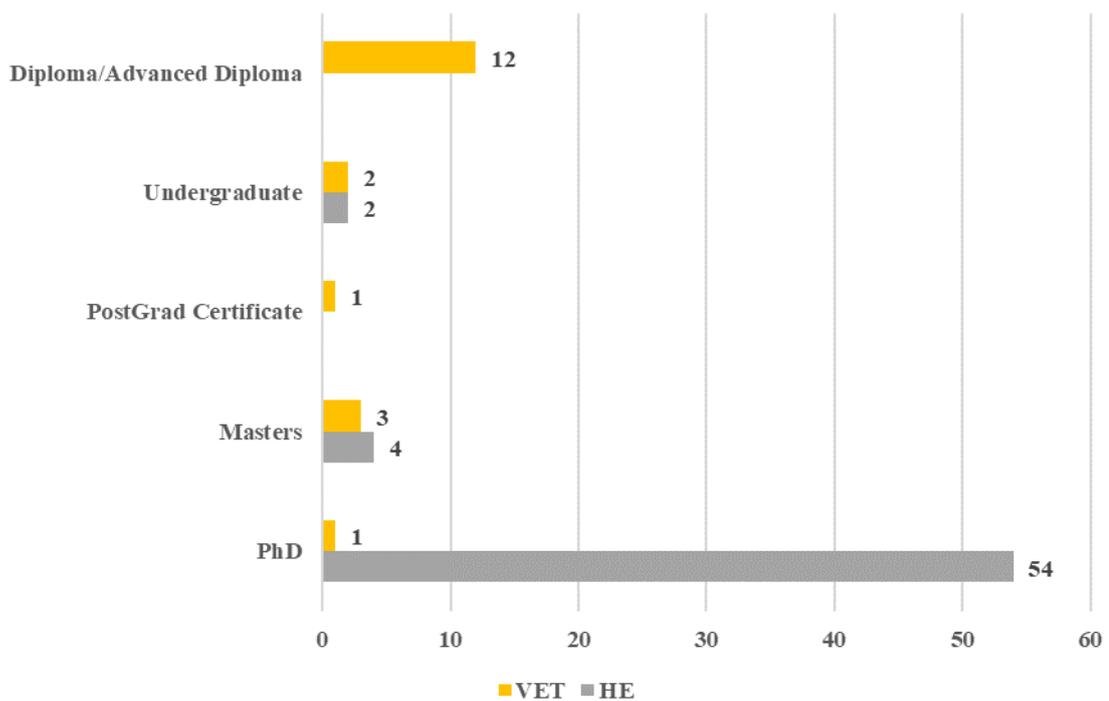
Institution	Number of years with current employer				Number of years in current role			
	<5	5-9	10-19	20+	<5	5-9	10-19	20+
HE	24 (40%)	13 (21.7%)	20 (33.3%)	3 (5%)	26 (43.3%)	13 (21.7%)	18 (30%)	3 (5%)
VET	7 (36.8%)	6 (31.6%)	2 (10.5%)	4 (21.1%)	7 (36.8%)	6 (31.6%)	2 (10.5%)	4 (21.1%)

(HE n = 60; VET n = 19; percentages rounded to the nearest decimal point) (own elaboration)

The responses to the fields of study offered by the respondents' departments only served to verify that these were from various business disciplines, including: Accounting, Banking and Finance, Business Communications, Economics, Human Resources, Information Technology, Logistics, Management, Marketing, Risk Management and Tourism and Risk Management. The question in the survey was merely used to validate that respondents fitted the survey criteria.

Formal qualifications of respondents are summarised at Figure 4.2. In the HE sector 90% of respondents held PhD qualifications, and this was not unexpected, given “most ongoing academic jobs in universities require a research degree, typically a PhD ... [and] university recruitment focuses more on research performance than on teaching skills”s (Norton et al., 2013, p. 16). A PhD qualification is also a pre-requisite for career progression to more senior academic ranks, such as the ones surveyed in this thesis. Only two HE respondents held undergraduate qualifications, with the balance holding Master level qualifications.

Figure 4.2: Qualifications of respondents



(own elaboration)

In the VET sector, as shown in Figure 4.2, the majority held a Diploma or an Advanced Diploma. The VET qualifications broadly align with the teaching requirements of the sector. There were no significant findings from the data in relation to qualifications of respondents.

Participants were asked if they were familiar with the concept of TPI schemes. As expected, VET respondents were comparatively more familiar with TPI schemes, with 14 out of 19 answering positively, whereas only 22 out of 60 HE respondents reported knowledge of such schemes. It is known that TPI activities have occurred in the VET sector for some time, with varying degrees of success, however, TPI initiatives for the HE sector are at best in the infancy stage. The relatively lower familiarity with TPI schemes in the HE sector may be explained, at least in part, by the university sector's focus on research, as the "Bradley Review Report (2008) recommended that research remain central to the definition of an Australian University" (Probert, 2013, p. 4). Comments made by respondents at the end of the survey appear to support the focus on research rather than teaching. One respondent stated

I do want to set up strong industry links for my department but they will be more research focused. Although there could be potential spill-over benefits in classroom teaching/lectures for academics being more industry knowledgeable. We have a sabbatical system and academics who are research active are able to apply for a semester every three years of leave to visit other universities. This is research leave.

Another respondent commented that "*whilst professional experience is valued, it will not be as greatly valued as opportunities to grow research capability and opportunity*". This view was supported by another respondent stating "*research is much more important to prof development (sic) of academics and much more valuable for shaping the I&T program ... also I would want to see clear research and engagement benefits as well as teaching benefits*". These comments highlight the bias that exists towards research and point to challenges in developing TPI as an ongoing future option in the HE sector. The importance of research performance "is partly a result of growing government insistence that public research funds should be directed to areas of proven quality rather than distributed evenly across an expanding sector" (Probert, 2013, p. 12). I argue that TPI is

a catalyst for applied research, as the teacher is *already in situ* or ‘inside the tent’, and therefore more able to capitalise on mutually beneficial applied research opportunities with the host firm. Indeed, according to Unwin (2017, p. 467),

Gaining access to the workplace has become even more important both in order to maintain an understanding of the implications of technological change and other changes to the work process, and also to develop and refine the conceptual analytical frameworks required to critique these changes.

Applied research through TPI brings prospects for fostering knowledge networks across different sites of practice through access to different organisational environments and their cultures. The knowledge gathered may then be disseminated and used to improve products, services, systems, and processes, and enhance the curriculum. The HE focus on research has resulted in the number of ‘teaching-only’ academics representing a small proportion of the overall academic population, estimated to be approximately 3,500 in 2012, accounting for almost 10% of all academics (Probert, 2013). Both Probert (2013) and Whelan (2017) point to the differences between the traditional academic, whose working life has been divided between research and teaching, and the newer classification of ‘teaching-only’ academic that has virtually no focus on research. As the focus, thus far, for promotions in universities has largely been based on research activity, this may help to explain the relatively lower awareness of TPI schemes in the HE sector. Given the call for the Australian HE sector “to connect more closely to industry in order to address students’ work readiness and employability skills” (Norton et al., 2013, p.18) , ‘teaching-only’ academics may be well positioned to be future TPI scheme participants. One challenge in achieving greater TPI participation in the future, however, is that it seems “at present, academic recruitment devalues prior or concurrent professional practice” (Norton et al., 2013, p. 18) .

Survey participants were asked if they had supported an industry placement. Nine out of 19 VET and eight out of 60 HE respondents indicated they had previously supported a TPI placement. The scope and breadth of the support provided varied considerably in the responses, and these have been summarised at Table 4.4.

Table 4.4: Support for previous TPI placements

Sector	Support given for previous TPI placements
HE	Funding for backfill and salary for a two-week placement
	Time release (<i>details not provided</i>)
	General discussion for in-principle support, but nothing yet materialised
	Leave without pay for a placement (<i>duration not specified</i>)
	Sabbatical leave
	Work arrangements to spend time in industry (<i>details not provided</i>)
	Mentoring, debriefing, strategic advice
VET	Work placement support and industry referral (<i>details not provided</i>)
	Regular monitoring and supervision (<i>details not provided</i>)
	Full time industry release for three months
	Limited, encouragement during non- teaching period
	Placement in industry related to Certificate III in Customer Contact
	Return to industry placement. Working in own hours within their field
	Industry placement via extended leave, leave without pay and offsite duties – teacher being paid for two days per week by host organisation

(own elaboration)

The level of support given by the educational institution is not entirely clear in some of the responses, as details were not provided. However, in general it seems that, in both the HE and VET sectors, combinations of personal leave and organisational support were provided. The data in Table 4.4 seem to point to a significant reliance on staff goodwill to undertake CPD initiatives, such as TPI placements, in their own time. This appears to point to a lack of funding opportunities for TPI placements and perhaps weak policy frameworks for workforce development.

Respondents' knowledge of policies relevant to teacher professional development, as summarised in Table 4.5, reported a significant degree of uncertainty. It should be noted that 13 respondents did not answer this question. In the VET sector almost half of the

respondents (47.4%) indicated policies for professional development existed in their organisations, with 21.1% unsure and 31.6% answering no policies were in place. The lack of policies for teacher professional development was much higher in the HE sector, with only 17% of respondents being aware of such policies; 19% claiming they did not exist in their organisation; and 50% unsure.

Table 4.5: Knowledge of teacher professional development policies

Sector	Knowledge of policies to support teacher professional development			
	Yes (%)	Not Sure (%)	No (%)	Total
HE	8 (17%)	30 (63.8%)	9 (19.1%)	47 (100%)
VET	9 (47.4%)	4 (21.1%)	6 (31.6%)	19 (100%)
Total	17 (25.8%)	34 (51.5%)	15 (22.7%)	66 (100%)

(n = 66; percentages rounded to the one nearest decimal point)

Note: 13 missing responses have been excluded from the calculation in the table (own elaboration)

The responses from Table 4.5 appear to correlate with earlier comments that TPI activities, as part of teacher professional development, are at the infant stage in the HE sector, and that in the VET sector, despite their presumed closer alignment with industry, the reality is that teacher professional development policies such as TPI are known by less than half of the respondents. I argue that managers' lack of knowledge of TPI schemes suggests weaknesses in areas of workforce development that may enhance teacher industry currency. This is supported by the contentious debates around the relevance and limitations of teacher CPD activity (particularly in VET), and its progressive undermining in recent years (Bradley, 2009; Clayton & Guthrie, 2013; Guthrie & Jones, 2018; Harris et al., 2009; Saunders, 2012; Wheelahan & Moodie, 2011). The data from Table 4.5 suggest there is considerable room for improvement in disseminating information about existing policies, or for policies to be created where these do not exist. Considerations for funding and policy development are also discussed in the next chapter that analyses the interview data.

The next sections provide an analysis and discussion of HE and VET managers to the five subsidiary research questions. Survey questions have been coded into ‘clusters’ within each of the tables presented within the appropriate research question.

Respondents were asked to answer questions based on a five-point Likert scale from a given list of statements. It should be noted that for the purposes of the analysis, the strongly Agree and Agree responses were combined (A), as were the Disagree and Strongly Disagree responses (D) – Neutral responses are shown as (N). The statements posed to respondents were formulated by relying on existing literature. As current literature focuses on teachers’ experiences, the survey sought the views of HE and VET education managers to discover whether their views align with existing literature, or whether they have different perspectives. To recall, managers’ views are considered important, as they play a pivotal role in facilitating or hindering TPI activities.

Do Managers See Any Value in TPI Initiatives?

Responses to this question are summarised at Tables 4.6 and 4.7.

TPI value - teacher

The focus of this cluster, summarised at Table 4.6, was the teacher building their industry currency, and enhancing classroom teaching and learning practices (statements 1 and 2), HE managers (79%-80%) were largely in agreement and VET managers with a 95% positive response, even more so. These responses clearly indicate that managers in both sectors see value for the teacher and students from the pursuit of TPI initiatives. This was not unexpected, as one of the main purposes of TPI is indeed to enhance teachers’ knowledge and understanding of contemporary business environments, and this is supported by existing literature Brown & Chalmers, 1990; Ireland et al., 2002; Klein, 2001; McGavin, 1996; Whelan, 2017) . There was also agreement to statement 3, from

both HE (62%) and VET (79%), that TPI may provide the host firm with access to a ready pool of graduates. This is one of the ‘spin offs’ from the teacher working *in situ*, as they get to know what the host firm’s workforce needs are, and they are able to make suggestions about graduate recruitment opportunities.

TPI value – educational institution

The focus of this cluster, summarised at Table 4.6, was on how the value to the educational institution may be derived. There was high agreement from HE (70%-77%) and VET (90%-100%) to statements 4, 5, and 6 that TPI would enrich student learning, and build organisational knowledge and individual capacity and support academic staff training and PD needs. Clearly, these responses indicate that managers see real value for their educational institution in teacher participation in TPI activities.

Managers were asked about the value of TPI in the context of teachers’ CPD outcomes (statement 9). In total, 45 respondents disagreed with the statement that TPI has no value to their institution, staff, or students, with 10 in agreement and 11 being neutral. The large positive response points to the potential contribution to knowledge creation and expansive forms of learning opportunities created by TPI activities. To recall, it is through the interactions and mediations between key stakeholders to any activity, that joint processes of knowledge production may occur through participation across different communities of practice (Billett, 2004c; Engeström, 1987; Fuller & Unwin, 2004; Sannino & Engeström, 2018; Trust, 2017; Wenger, 1998b). Through the boundary encounters of TPI, the teacher is likely to gain additional knowledge and understandings that can be used as a resource for curriculum development for the benefit of their students, in addition to publication and/or other developmental opportunities that may also benefit the wider community. Yet, curiously, as to whether TPI activities would add value to the teaching

program, student learning, and the educational institution (statement 10), the positive response was far less with only 51% of HE managers, and 47% of VET managers considering this unlikely. The response to this statement appears to contradict the earlier response to statement 2, where a significant majority indicated that TPI may enhance classroom teaching and learning practices. However, the reason for this discrepancy cannot be determined by these data.

The use of TPI initiatives to meet department KPIs for staff PD and to achieve audit compliance (statement 7), did not appear to be as strong a consideration for HE managers (43%) as it was for their VET counterparts (79%). The responses from VET managers were expected in the context of audit compliance, because of the need for teachers to have directly relevant current industry knowledge and skills in accordance with the AQF Standard 1.13 (Australian Skills Quality Authority, 2020a). Responses from HE managers were unexpectedly high as they accounted for nearly half, and this is viewed as a significant consideration, although the specifics of those KPIs are not known. One possible explanation for this may be a professional body requirement for course accreditation that may stipulate some form of current industry knowledge among the teaching staff.

The use of TPI to fill teaching load requirements (statement 8) did not appear to be as strong a consideration for HE managers (21%), as it was for their VET counterparts (42%). The differences between the two sectors may be explained, in part, by the fact that VET has a typically higher teaching load requirement when compared to HE that has a significant research component requirement for academics, with the exception of ‘teaching only’ academics that, to recall, represent a minor proportion of the overall university teaching staff.

Table 4.6: Managers’ perceptions of TPI value: Teacher and educational institution

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
TPI value – teacher								
1. Time spent in industry would help teachers build their knowledge of current industry practices that are relevant to their field Q 21 (1)	38 (80%)	5 (11%)	4 (9%)	47 (100%)	18 (95%)	1 (5%)	0 (0%)	19 (100%)
2. Teacher industry placement may enhance classroom teaching and learning practices Q 21 (3)	37 (79%)	6 (13%)	4 (9%)	47 (100%)	18 (95%)	1 (5%)	0 (0%)	19 (100%)
3. Teacher industry placement may provide the host firm with access to a ready pool of graduates Q 21 (4)	29 (62%)	15 (32%)	3 (6%)	47 (100%)	15 (79%)	3 (16%)	1 (5%)	19 (100%)
TPI value – educational institution								
4. To build organisational knowledge and enrich student learning Q 22 (4)	36 (77%)	6 (13%)	5 (11%)	47 (100%)	17 (90%)	2 (11%)	0 (0%)	19 (100%)
5. To build organisational and individual capacity Q 22 (6)	33 (70%)	8 (17%)	6 (13%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
6. To support academic staff training and professional development needs Q 22 (1)	35 (75%)	6 (13%)	6 (13%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
7. To meet departmental KPIs for staff professional development, to achieve audit compliance Q 22 (2)	20 (43%)	18 (38%)	9 (19%)	47 (100%)	15 (79%)	4 (21%)	0 (0%)	19 (100%)
8. To fill teachers’ teaching load requirements – for example of a teacher was ‘under -loaded’ Q 22 (8)	10 (21%)	8 (17%)	29 (62%)	47 (100%)	8 (42%)	3 (16%)	8 (42%)	19 (100%)
9. Teacher industry placements are unlikely to result in the kind of teacher professional development outcomes that would add value to the teaching program Q 23 (2)	13 (28%)	10 (21%)	24 (51%)	47 (100%)	4 (21%)	6 (32%)	9 (47%)	19 (100%)
10. There is no value in it for the host organisation, the teacher, the students, or the educational institution Q 23 (8)	5 (11%)	9 (19%)	33 (70%)	47 (100%)	5 (26%)	2 (11%)	12 (63%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n= 19) (own elaboration)

Based on these responses, it would seem that TPI activities are used as a convenient management solution for underload VET teachers. Indeed, it was my personal experience that TPI was used to fill the gap in a shortfall of my teaching hours.

TPI value - networking

This cluster, summarised at Table 4.7, focused on industry-academia relationships that may lead to mutually beneficial outcomes through various forms of collaboration, networking, project work between professionals, to build capacities for both the host firm and the educational institution. Responses to the statements in this cluster were highly positive from both HE (75%-80%) and VET (79%-90%). The value of TPI is seen by education managers as an enterprise that can afford potentially rich encounters to mutually build knowledge and skills. Notwithstanding a teacher's peripheral participation in a host firm's activities, as a form of boundary encounter, TPI initiatives link individuals to different communities of practice in potentially constructive ways. Through their interactions with other professionals across different sites of practice, spaces are opened up to different perspectives. Networking is likely to lead to more sustainable partnerships that in turn can continue to open up additional opportunities for collaboration and transfer of knowledge. The dialogical character of participation in workplace activities can lead to expansive forms of learning that support the transformation of workplace practices (Billett, 2004b; Engeström, 2001, 2011; Engeström & Kerosuo, 2007; Wenger, 1998a).

Respondents were asked whether more should be done to nurture mutually beneficial alliances between educators and industry to support workplace learning, build organisational capacities and prepare work ready graduates, and 80% of HE managers and 95% of VET managers agreed this should be done. The overwhelming majority, especially in the VET sector, indicates the high importance placed on education-industry partnerships. This is not surprising in the context of broader discourses of change and shifting knowledge and skills requirements for occupational practice, and the crucial role educators play in helping to build productivity and higher-level capacities.

Table 4.7: Managers’ perceptions of TPI value: Networking

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
TPI value – networking								
1. To build networking opportunities between educational institutions, academics and industry professionals Q 22 (7)	36 (77%)	6 (13%)	5 (11%)	47 (100%)	17 (90%)	2 (11%)	0 (0%)	19 (100%)
2. To promote opportunities for mutually beneficial joint project work between my department and the industry host partner Q 22 (5)	36 (77%)	7 (15%)	4 (9%)	47 (100%)	16 (84%)	3 (16%)	0 (0%)	19 (100%)
3. Teacher industry placement enable teachers and industry professionals to work together on mutually beneficial projects that may build capacities for the host firm and the educational institution Q 21 (2)	35 (75%)	9 (19%)	3 (6%)	47 (100%)	16 (84%)	3 (16%)	0 (0%)	19 (100%)
4. Teacher industry placement support networking between teachers and industry professionals Q 21 (5)	37 (79%)	7 (15%)	3 (6%)	47 (100%)	16 (84%)	3 (16%)	0 (0%)	19 (100%)
5. Teacher industry placement may bring closer forms of co-operations between industry-academia that are mutually beneficial for the parties involved Q 21 (6)	35 (75%)	8 (17%)	4 (9%)	47 (100%)	15 (79%)	4 (21%)	0 (0%)	19 (100%)
6. Teacher industry placement may lead to mutually beneficial project work between the host organisation and the educational institution Q 21 (12)	38 (80%)	4 (9%)	5 (11%)	47 (100%)	17 (90%)	2 (11%)	0 (0%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n= 19) (own elaboration)

Tantamount to this endeavour is the need to strengthen education-industry. This goes to address part of the answer to subsidiary research question number 2, that seeks to establish what kind of learning may be needed, by whom and for whom.

Indeed, as shown in Table 4.8, despite the challenges identified above, respondents indicated they could see value for their department in supporting TPI activities.

Table 4.8: Potential value for the educational department in supporting TPI activities

Sector	Yes (%)	Maybe (%)	No (%)	Total (%)
HE	21 (45%)	19 (40%)	7 (15%)	47 (100%)
VET	13 (68%)	5 (26%)	1 (5%)	19 (100%)

(percentages have been rounded to the nearest integer) (own elaboration)

As can be observed from Table 4.8, the HE responses are less positive than their VET counterparts, but despite the high neutral numbers from HE respondents, almost half agree that TPI activities are of value. However, TPI opportunities are not without considerable challenges as a Professor of Marketing with more than 20 years of experience argued

The administration and championing of such a scheme is a big hurdle. It won't work otherwise. Also, I would want to see clear research and engagement benefits as well as teaching benefits.

This comment underscores the need for institutional 'buy in' from senior management that drills down to the operational level and as suggested earlier, embedding TPI schemes into HR policies and practices is one way of achieving this. Indeed, I argue that specific TPI policies should be developed in the education sector and these should be linked to regular cyclical participation (for example, every two to three years), and be assessed against appropriate KPI's. This should contribute to staff development and thereby build organisational capacities.

What Kind of Learning May Be Needed, By Whom, and For Whom?

This research question explored the type of learning that might be needed for the actors involved in TPI initiatives. Responses to this question are summarised at Table 4.9

Teacher knowledge and skill requirements

This cluster focused on whether managers believed that TPI experiences would build teachers' knowledge of current workplace practices by gaining insights relevant to their areas of teaching (statements 1 and 2). To recall, the pressures of technological change have brought new ways of working, and with it, the demand for new knowledge and skill requirements to meet industry's needs. Such factors have continued to place increasing demand upon educators to maintain their industry currency, in order to avoid professional

obsolescence. Such obsolescence may be mitigated through TPI activities as the teacher in situ works with professional colleagues in a contemporary workplace environment where they are able to use the latest technology the host firm makes available. In the context of business disciplines, this may be specific software solutions for application in a number of fields such as HRM, accounting, marketing, and IT. There is acknowledgement by managers that teachers cannot keep up to date with current industry practices by not being a participant in contemporary industry settings. There was complete agreement on the goals from statements 1 and 2 from VET managers, and a lesser, but still strong agreement from HE managers (77%-81%). The positive perceptions from managers about TPI is important as they are a critical link to the materialisation and sustainability of such schemes. It is not difficult to imagine that it would be more problematic to negotiate TPI arrangements if managers did not hold positive views about them. The issue of who needs to learn what is further explored in Chapter 5, through the analysis and discussion of the semi-structured interviews.

Teaching repertoire

This cluster focused on the opportunities for curriculum changes through teaching practices influenced by industry placement experiences to link classroom learning to the world of work.

The responses to statements 3, 4, and 5 were very positive from HE (70%-77%), and exceptionally high for VET (90%-100%). It is obvious from these data that education managers can see great opportunities for enhancing and reshaping the curriculum into one that is more relevant and better meets the demands of industry, whilst at the same time contributing to more 'work-ready' graduates.

TPI activities engage educators in processes of learning that emerge from their participation in new workplace contexts. The resources they are given access to *in situ*, draws from a vast repertoire of explicit and tacit forms of knowledge. In this environment, new understandings are formed as the teacher moves between educational and workplace settings. It is through this embodied process of learning, that the teacher “constructs or reconstructs knowledge or skills” (Hager & Hodkinson, 2009, p. 633) to change what they know, and imagine what they can do, to expand their pedagogical repertoire. This should result in classroom activities that are more connected to the world of work, to provide students with greater knowledge of jobs, career fields, and work opportunities through a more practically oriented and relevant curriculum.

Curiously, only 47% of HE managers agreed, with 49% responding neutral. In contrast, agreement from VET managers was 74%, with 24% being neutral. The low HE agreement response to this statement was surprising, given the focus on e-learning in universities over the past decade. Perhaps these views may change as result of more recent events, such as the Covid-19 pandemic that has ‘forced’ a migration of teaching to online mode, in response to this event. I argue here that opportunities should exist for the development of e-learning materials and that teachers would benefit from TPI to learn of latest on-line and e-learning technologies.

Table 4.9: Teacher knowledge and skills requirements and teaching repertoire

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
Teacher knowledge and skills requirements								
1. Teacher industry placements are a way to build teachers' knowledge of current workplace practices Q 21 (7)	36 (77%)	6 (13%)	5 (11%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
2. To enable teachers to gain insight into current business practices that are relevant to their areas of teaching Q 22 (3)	38 (81%)	2 (4%)	7 (15%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
Teaching repertoire								
3. Teacher industry placements may connect classroom learning to the world of work, including teacher knowledge of jobs, career fields, and work opportunities for students Q 21 (11)	36 (77%)	7 (15%)	4 (21%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
4. Teacher industry placements may influence teaching practices to make them more relevant to the current world of work Q 21 (10)	33 (70%)	7 (15%)	7 (15%)	47 (100%)	19 (100%)	0 (0%)	0 (0%)	19 (100%)
5. Teacher industry placements may contribute to curriculum development that better meets the needs of today's workplaces Q 21 (8)	35 (75%)	6 (13%)	6 (13%)	47 (100%)	17 (90%)	2 (10%)	0 (0%)	19 (100%)
6. Teacher industry placements may build e-learning opportunities between host firm and education institution Q 21 (9)	22 (47%)	23 (49%)	2 (4%)	47 (100%)	14 (74%)	5 (26%)	0 (0%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n = 19) (own elaboration)

In relation to opportunities for the development of e-learning material (statement 6), The mediation of actions and ideas that could result from e-learning projects reflect forms of expansive learning or “developmental transfer” (Tuomi-Gröhn & Engeström, 2003, p. 30) that occur at the boundary of activity systems through mutual engagement and the sharing of a broad repertoire of knowledge across joint enterprises (Wenger, 1998b), as shown in Figure 2.11, and this is especially applicable to TPI activities.

What Are the Challenges of Implementing and Supporting TPI Activity?

This question focuses on the difficulties of finding a potential host partner for TPI activities and what institutional resource implications there are for engaging in such activities. Responses are summarised at Table 4.10.

Difficulties of implementing TPI schemes

Unfamiliarity with TPI arrangements (statement 1) scored 49% from HE and 53% from VET managers. These responses highlight the important need to disseminate information about TPI schemes if they are to be sustainable. As shown in Table 4.5, in both HE and VET sectors, managers appear to have poor knowledge of TPI policies and, as discussed earlier, only 17% of HE managers and 47% of VET managers indicated their organisations had policies for TPI. The policy vacuum that seems to be evident from the responses indicates internal tensions for TPI schemes. A lack of clear policy guidelines cannot be considered to foster a conducive environment for the creation and sustainability of TPI schemes.

Statements 2 and 3 are similar and respectively focus on the difficulties of finding a willing host partner and whether businesses have an interest in TPI. As a Leading Vocational Teacher from Management with more than 20 years of experience noted *“many businesses are unwilling to be involved because of the nature of their business, for example, legal firms in regard to privacy”*, and this is a reasonable observation that points to a limiting factor in seeking academia-university partnerships, yet this should not be seen as an insurmountable hurdle as, if the key stakeholders agree, this constraint may be overcome through confidentiality agreements, or similar arrangements. It should be remembered that these are the views of education managers, and these will be compared to the responses from industry managers later in this chapter. Just under a third of HE

respondents (32%) and almost half of VET respondents (47%) agreed that finding a willing host industry partner was difficult. Respondents from both sectors also held similar views in relation to the level of interest businesses may have in supporting TPI activities. As can be observed from Table 4.10, HE responses were only 30% positive, and only marginally better for VET (37%). The data underscores the importance of developing networks between educational institutions and potential host organisations in order to create possible opportunities for mutually beneficial TPI activities, issues that are considered later in this chapter.

Education institution resources

Neoliberalism is an ideology that has an “emphasis on the efficiency of the free market, the need for deregulation and privatization, the reduction of government spending on social services, and the replacement of the concept of ‘public good’ with individual responsibility” (Mintz, 2021, p. 81), and it appears these ideologies are now well accepted in most advanced economies around the world. The neoliberal view that education is a private good has resulted in policies that have substantially negatively impacted the funding of education. According to (d’Agnese, 2019), critics of neoliberalism claim its ideology

betrays the nature of education both in theory and in practice, narrowing down the scope and purposes of education, the occasions for educational encounters, and the quality of knowledge emerging from educational contexts. (p. 693)

Because neoliberalism sees education as a private good, it views students as customers and can therefore shift the cost of public education away from the community and towards the individual. This ideological shift has been used as the excuse to justify the significant reduction in funding for public education, especially in the HE and VET sectors (Lewis, 2008). These circumstances make it difficult in practice, for HE and VET institutions to

know the availability of funds from one year to the next, especially as the reduction in government funding forces them to seek external sources of funds, which, by their very nature, are uncertain. Funding uncertainty is an issue that was recognized in a New Zealand Controller and Auditor General (2008) report, as it recommended that the “Minister of Education include all of its spending on professional development for teachers when deciding the priority of initiatives to fund, and when considering the adequacy of professional development funding”. The general reduction in funding to educational institutions has had a tremendous impact on their resources, requiring a prioritization of activities. Whilst TPI schemes are viewed positively, as evidenced by education managers’ responses in Tables 4.6 and 4.7, funding for TPI schemes is known to be a problematic issue, as public educational institutions claim they are generally insufficiently government funded, leading to low financial allocations for these activities.

Lack of funding was commented on by a Senior Lecturer (HE) in International Business with more than 20 years of experience who stated:

If the education sector and industry are really serious about aligning curriculum to the workplace requirements, then industry placements should be given more prominence. The problem will always be around funding, but governments should see this as an investment and not an expenditure item, and fund industry placements accordingly.

Disruption to back-filling and timetabling and staffing arrangements (statements 4 and 5) were considered to have a comparatively lesser impact in the HE sector (53.2% and 51.1% respectively), than in the VET sector (78.9% and 63.2% respectively). There is little doubt that staff absence impacts timetabling and class scheduling, but TPI arrangements are not usually done on the spur of the moment, and I argue that proper long-term planning would alleviate most of these difficulties. As a Leading Vocational Teacher from Management with more than 20 years of experience commented:

“professional development (industry release) currently does not occur often because teachers cannot be spared from their teaching roles”, and this highlights the need for longer term planning and the development of policies to support TPI initiatives. Indeed, I argue that if TPI schemes were to be embedded in workforce development policies, there would be a regular cycle of such activities that could be reasonably incorporated into the staff and timetable planning projections. No doubt, workforce development policies I argue in favour of, carry a cost factor and this leads me to suggest that appropriate dedicated funding for TPI schemes should be made a priority. My argument is predicated on the responses to statement 7 where only 26% of HE managers and 21% of VET managers believed their department had the ability to accommodate TPI activities.

Table 4.10: Challenges of implementing and supporting TPI

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
Partnership challenges								
1. I am unfamiliar with such arrangements Q 23 (1)	23 (49%)	8 (17%)	16 (34%)	47 (100%)	10 (53%)	3 (16%)	6 (32%)	19 (100%)
2. It is too difficult to identify a suitable organisation that is willing to support it Q 23 (9)	15 (32%)	19 (40%)	13 (28%)	47 (100%)	9 (47%)	4 (21%)	6 (32%)	19 (100%)
3. Businesses are unlikely to support it Q 23 (10)	14 (30%)	19 (40%)	14 (30%)	47 (100%)	7 (37%)	4 (21%)	8 (42%)	19 (100%)
Education institution resources								
4. We lack the resources to support it Q 23 (3)	26 (55%)	15 (32%)	6 (13%)	47 (100%)	14 (74%)	4 (21%)	1 (5%)	19 (100%)
5. The disruption it would cause of terms of back-filling teacher positions Q 23 (4)	25 (53%)	14 (30%)	8 (17%)	47 (100%)	13 (79%)	3 (16%)	3 (16%)	19 (100%)
6. It would complicate teacher timetabling and staffing arrangements Q 23 (5)	24 (51%)	14 (30%)	9 (19%)	47 (100%)	12 (63%)	4 (21%)	3 (16%)	19 (100%)
7. It would be too difficult for my department to accommodate it Q 23 (6)	15 (32%)	20 (43%)	12 (26%)	47 (100%)	11 (58%)	4 (21%)	4 (21%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n= 19) (own elaboration)

How Might TPI Opportunities Be Improved to Provide Greater Benefits to All Stakeholders?

This cluster considers ways in which TPI opportunities may be improved, and the duration of placement. Responses are summarised at Table 4.11.

Pre-Planning

HE responses (51%) to statement 1 do not appear particularly strong. VET responses (74%) are probably the result of comparatively more experience with TPI schemes in this sector. Yet, for statement 2, there appears to be a greater need to establish goals and objectives to guide the placement arrangement for both HE (70%) and VET (90%).

Table 4.11: Planning, resources, and skills matching

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
1. Demonstration of adequate pre-planning between our organisation, the teacher, and the host organisation prior to the commencement of the placement Q 25 (2)	24 (51%)	18 (38%)	5 (11%)	47 (100%)	14 (74%)	5 (26%)	0 (0%)	19 (100%)
2. Evidence of clearly established goals and objectives to guide the industry placement arrangement Q 25 (3)	33 (70%)	11 (23%)	3 (6%)	47 (100%)	17 (90%)	2 (11%)	0 (0%)	19 (100%)
3. The teacher having access to adequate resources to support the industry placement initiative (e.g. induction; working space; work equipment; staff mentors, etc.) Q 25 (7)	29 (62%)	14 (30%)	4 (9%)	47 (100%)	18 (95%)	1 (5%)	0 (0%)	19 (100%)
4. Achieving close alignment between the teacher's skills and aptitudes, and the needs of our organisation Q25 (1)	29 (62%)	15 (32%)	3 (6%)	47 (100%)	14 (74%)	0 (0%)	5 (26%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n= 19) (own elaboration)

Curiously, in terms of the teacher being able to have access to adequate resources to support the placement, whilst VET managers thought this was highly important (95%), their HE counterparts' scores were much lower at 62%. The HE responses do not seem

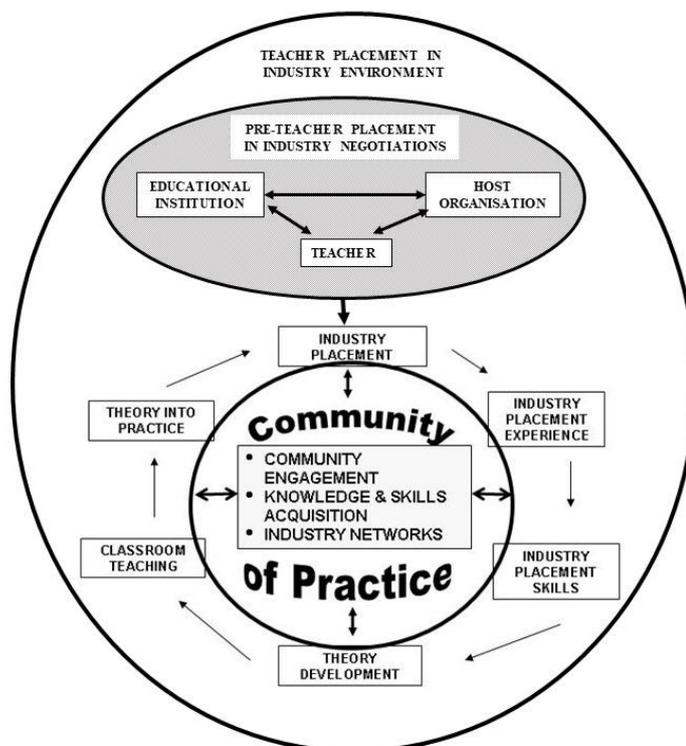
logical and signal a potential problem because, as shown in the shaded circle in Figure 4.3, pre-teacher placement industry negotiations are of paramount importance. Consequently, these should occur prior to *in situ* activities commencing, in order to set clearly defined and agreed to parameters. I argue that the pre-placement discussion and negotiated agreement on the scope of role and duties to be undertaken by the teacher also provide opportunities to strengthen the relationship between the educational institution, the host organisation, and the teacher. Such discussions should generate ideas that will motivate and drive activities between the two systems (Batiibwe, 2019) - the educational institution and host organisation, thus linking them more closely together by “partially shared object[ives]” (Sannino & Engeström, 2018, p. 46) . These types of encounters can “lead to useful re-constructions of those boundaries [between academic-private enterprises] offering purposeful ground for learning and development” (Kerosuo, 2001, p. 53).

The effective coordination of resources and activities at the boundaries of diverse communities of practice necessarily entails mutual engagement that “draws on what we do and what we know, as well as on our ability to connect meaningfully to what we don’t do and what we don’t know – that is, to the contributions and knowledge of others” (Wenger, 1998b, p. 76).

It can be observed from Figure 4.3 that the industry placement is predicated around a community of practice that incorporates knowledge and skills acquisition, the development of industry networks and the engagement of the wider community. The industry placement is shown in a circular process of activities that move from experience, to skill and theory development, to classroom teaching, and theory into practice, after which the cycle begins again. In relation to the return on resource investment, the shaded

box in Figure 4.3 shows the pre-placement negotiations that must be conducted between the key stakeholders to ensure the expectations of each are successfully met, because social learning requires conscious design and facilitation – it does not happen by accident” (Woodhill, 2010, p. 64). This is likely to be a very complex environment, as the negotiations would need to encompass a myriad of administrative matters such as access to sites, insurance, and occupational health and safety considerations, as well as agreement on the actual tasks to be performed *in situ*.

Figure 4.3: TPI environment and preliminary arrangements (Schüller & Bergami, 2020, p. 47)



Statement 4 relates to the desirability to achieve alignment between the teacher’s skills and aptitude and the needs of the educational institution. There was comparatively a much stronger agreement from the VET respondents (73.7%) than the HE respondents (61.7%). It is difficult to see TPI activities being successful without such alignment. To recall, engagement, imagination and alignment are interconnected aspects of participation in communities of practice (Wenger, 1998b). In addition to establishing a common

ground, mutually agreed to goals and objectives, and a set of procedures and systems to guide TPI activities, there must be alignment between the CPD needs of the teacher on placement, the kinds of work activities or projects that the host organisation is reasonably able to involve the teacher in, with due consideration to the complementary matching of professional and interpersonal knowledge and skills-sets, to the goals and objectives of the shared enterprise.

As the teacher is central to TPI activities, it is vital that the placement is not only resourced and suited to their individual skills and aptitudes, but also that these are fit for purpose in terms of adding value to the systems and processes of the host organisation. It is also very important that TPI activities that are supported and funded by the educational institution reflect its organisational goals and objectives and meet its needs. This is reflective of the reciprocal nature of workplace learning (Billett, 2004b).

Duration of TPI placement

Finally, participants were asked to indicate the length of time they would be willing to support a teacher on placement, from a list of six statements, as shown in Table 4.12. It should be noted that not all respondents completed this question. Respondents were additionally provided with a free text response in case they had different options to the ones given, and these are provided after the discussion of the data in Table 4.12.

As can be observed from Table 4.12, HE managers prefer placements as outlined in statement 1, that is, for a semester period (42.4%), followed by a one-month release during the non-teaching period (24.2%) as per statement 3, and a one-day per week release for a semester (21.2%), as per statement 2.

Table 4.12: Length of time support for a placement

Statement	HE (%)	VET (%)
1. A full teaching semester release for full time work in industry	14 (42.4%)	2 (12.5%)
2. A fractional teaching semester release for working in industry one day a week	7 (21.2%)	3 (18.8%)
3. A one-month release for full time work in industry during the teaching period	0 (0%)	4 (25%)
4. A one-month release for full time work in industry during the non-teaching period	8 (24.2%)	0 (0%)
5. A one-week release for full time work in industry during the teaching period	1 (3%)	0 (0%)
6. A one-week release for full time work in industry during the non-teaching period	3 (9%)	7 (43.8%)
Totals	33 (100%)	16 (100%)

(percentages have been rounded to the nearest one decimal point) (own elaboration)

The pattern of responses appears to indicate a preference for longer placement durations, and this is supported by the comments made by a Head of Department (Business) with more than 20 years of experience, who stated:

I also believe that regular contact over a period of time is more beneficial to the teacher in placement as they see a full business cycle rather than a limited snapshot over a short period.

It is known that in universities, the preference is for academics to be on campus for the whole semester, and this is reflected by the high response to statement 1. The desire for on-campus presence is also supported by the responses to statement 4, where the release for placement would occur during the non-teaching period. Under this framework, it is not difficult to imagine the academic could reasonably be released for one-day a week, as most do not have a teaching load that requires five days a week of teaching.

The pattern of VET managers' responses in Table 4.12 is comparatively different to that of HE. Almost half of VET respondents (43.8%) appear to prefer placements outside the teaching period. This seems to be supported by statements 5 and 6 in Table 4.10, where VET respondents agreed that backfilling of staff and timetabling arrangements

were seen as negative factors in supporting TPI activities, and by shifting a placement outside the teaching period, these difficulties would be overcome. The next most favoured option was the one-month release during the teaching period (25%), followed by one-day a week for a semester (18.8%). It is likely that for both HE and VET respondents, choice preferences may be influenced by the availability of funding to support TPI activities.

Free text comments suggested other placement timing options, such as a two-week release during the teaching or non-teaching period; one-day a week over three months; or two-days a week over the year – these are slight variations to the ones offered, but not significantly different. Another suggestion for placement was proposed by a Professor (Business) with between 10-19 years' experience, based on a "*pracademic model where staff are employed by both on a part-time basis*". A 'pracademic' is an individual who spans the boundaries between academic and practitioner careers and who can move between the two areas with ease (Posner, 2009). This may not be so easy to implement, as it would essentially require two separate contracts that would need to coincide with working days at either workplace, the TPI placement would be funded by paid work done by the teacher *in situ*, but would also require a job role and tasks that would be of direct relevance to the teacher's specialisation.

Other comments in the free text box suggested the placement duration "*should be determined by the purpose and desired outcomes of the placement*" (Deputy Head Business) with more than 20 years' experience); and this "*depends on the quality and knowledge of the teacher*" (Senior Lecturer (Business) with more than 20 years' experience); and to "*tailor time available to the opportunity with longer placements*" (Professor of Marketing and Director of Research Business with more than 20 years' experience). A Head of Department (Business) with more than 20 years' experience

answered that *“my institution is research focused. We do have industry fellows who teach. Their industry experience comes from current or past work”*. Whilst having industry practitioners involved in teaching is seen as positive, because it allows industry practices to be more closely aligned with classroom activities, the above statement does not appear to consider the longer-term staff development needs of permanent teachers, rather, there is ‘buy-in’ of expertise. However, a good practitioner does not necessarily make a good teacher, as these are different roles requiring different skills-sets, and there is also the possibility that the practitioner may not be able or willing to continue teaching on a more longerterm basis due to externalities such as work commitments.

Another response from a Lecturer B (Business) with more than 20 years’ experience was that *“research on many organisations is more valuable than experience of only one”*. This is a curious statement as it appears to suggest that research is more important or more highly valued than practice. Given the commonly accepted notion that theory is derived from practice, it is difficult to interpret the meaning of this response, other than obtain the impression this comment is from a research driven environment. However, the point that may be attempted to be made in that statement does not consider the fact that TPI activities are not limited to a one-time experience, thus it is possible, and indeed desirable, for a teacher to undertake TPI activities on a recurring basis, and with different host organisations, to expand their own knowledge base through their participation in different industry settings.

Another Head of Department (Business) with more than 20 years’ experience, stated *“our departments run on very low numbers of staff. It would be impossible to find replacements for a teacher for a full semester and difficult for even a month”*, indicating a potential human resource problem that may be connected to funding, or the difficulty

in finding suitable teacher substitutes with the relevant skills and expertise. I continue to argue that if appropriate policies were in place to allow for regular TPI activities, then it would logically follow that planning for such activities would be factored into budgets and workforce planning.

There were also two comments that simply said they would not support TPI activities; one was unsure about supporting same; and a Senior Educator 2 (Business) with more than 20 years' experience said they had no delegated authority to approve a placement, however they claimed "*it is encouraged but under individuals' initiatives*". Under these circumstances, there is no institutional support for TPI activities, and it is left to the individual to nurture relationships with industry, and I argue this would make it more difficult for placements to materialise.

How Might We Know that TPI Meets Individual and Organisational Goals?

This cluster focused on the evaluation of TPI activities by asking participants to indicate their preferences against a given list of statements. Results are summarised at Table 4.13.

Evaluation of TPI activities

Evaluation of any activity is often seen as problematic because of human intersubjectivities. Consequently, there is a need to have clear goals and objectives upon which the activity is going to be evaluated in order to ensure fairness and transparency.

In relation to return on investment of resources to accommodate TPI activities, and their outcomes being too vague, only 43% of HE managers and 32% of VET managers disagreed with this statement with a considerable proportion being neutral (HE 34%; VET 42%). Indeed, the nebulous nature of TPI activities has been noted in the literature (Mitchell, 2011). These responses point to concerns managers have, in relation to seeing

value for their organisation's efforts in being involved in TPI activities. Despite the general goodwill and recognised benefits of TPI activities as evidenced by earlier responses, there is a perception in responses to this statement that the return on investment is not particularly high. Therein lies the argument for ensuring TPI schemes are developed with clear goals and objectives in mind, as discussed previously.

Table 4.13: Evaluating TPI

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
Evaluation of TPI activities								
1. The outcomes of teacher industry placements are too vague. There is no real return on the investment of resources that are needed to accommodate it Q 23 (7)	11 (23%)	16 (34%)	20 (43%)	47 (100%)	5 (26%)	8 (42%)	6 (32%)	19 (100%)
2. Evidence of the teacher consistently meeting or exceeding our organisation's expectations Q 25 (4)	29 (62%)	13 (28%)	5 (11%)	47 (100%)	16 (84%)	3 (16%)	0 (0%)	19 (100%)
3. The teacher's timely completion of set work, and to industry standards Q 25 (5)	30 (64%)	13 (28%)	4 (9%)	47 (100%)	12 (63%)	4 (21%)	3 (16%)	19 (100%)
4. The host organisation meeting or exceeding the teacher's professional development expectations Q 25 (6)	29 (62%)	15 (32%)	3 (6%)	47 (100%)	18 (95%)	1 (5%)	0 (0%)	19 (100%)
5. Effective participation demonstrated through various forms of engagement and collaboration between the teacher, our institution and the host organisation Q 25 (8)	33 (70%)	10 (21%)	4 (9%)	47 (100%)	5 (26%)	2 (11%)	12 (63%)	19 (100%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (HE n = 47; VET n= 19) (own elaboration)

Statement 2 focuses on the teacher's ability to meet their own organisational needs and requirements, and statement 3 focuses on the teacher's performance *in situ*, in the context of being able to evaluate the outcomes of TPI activities against benchmarks. If TPI schemes are to be sustainable, they need to be evaluated with predictability, impartiality, fairness, and consistency, consequently, all key stakeholders (the teacher, educational institution, and host organisation) should have a part to play in setting the relevant performance and evaluation parameters. Approximately two thirds of HE and

VET managers agreed with these statements, but for VET managers, the responses (84.2%) indicated a higher preference for the teacher to meet their institution's benchmarks. These responses may reflect the different environments the two sectors operate in, and are subject to, in terms of performance measurements. As one respondent commented "*performance indicators in universities are not consistent with industry placements as staff would lose 6 months of potential writing and publication time whilst on their placement*". This statement is consistent with the Bradley Review Report (2009) that considers research and knowledge creation as one of the primary purposes of universities. Notwithstanding this, I challenge the notion that TPI activity may rob an academic of research output. Indeed, I argue the opposite. The view of this respondent appears to be cast in a short-term perspective, whereas longer-term, holistic approach would view TPI activities as a means by which the teacher could expand their knowledge and test theories *in situ*, thereby building opportunities for academic research output. For example, peer-reviewed articles could be written on the teacher's experience *in situ*, case studies or new theories could be developed and published, and opportunities to participate in industry-based research projects may ensue. The situation in VET is different because their focus is not on theoretical research, but rather, on more practically oriented vocational education and training.

Statement 4 focused on the host organisation's ability to meet the professional development expectations of the teacher *in situ*. There is a considerable difference in responses to these statements from HE managers (62%) and those of VET managers (95%). The reasons for the difference are not known with certainty, but one possible explanation may be linked to the more practically focused orientation of the VET environment. This explanation appears to be supported by the responses to statement 5,

that focuses on various forms of engagement and collaboration, where 70% of HE managers responded positively, but only 26% of VET managers did so. Some forms of collaboration, such as research, are more likely to be aligned with HE sector activities. Rybnicek and Konigsgruber (2019) argue that resource availability is crucial to a successful industry-university partnership, as

In general, the quality and the utility of a collaboration is strongly dependent on the resources a partner can offer. In our analysis, we identified finance, time, staff and equipment as critical resources. (p. 230)

Although these authors speak of this in the context of research collaboration, I argue many of these considerations, such as the use of equipment and other resources, and the availability of host industry staff are equally applicable to TPI activities as they influence the quality and outcomes of such initiatives.

Industry Managers

Responses from industry managers are analysed below. A total of 32 responses were received and given this is not a high number, care should be taken in interpreting these results. I analysed the data from the perspective of organisational size, as this is appropriate given that the size of a firm is particularly relevant in relation to the capacity to support CPD programs, such as TPI schemes. The smaller entity may lack the resources and infrastructure to support the complex needs of such schemes. For example, the micro or small educational entity may not be able to financially support a secondment to industry where replacement teachers would be required to fill any gaps created by the TPI placement. Likewise, a micro or small commercial enterprise may lack the necessary internal resources and infrastructure to support TPI initiatives. I argue here that TPI initiatives are more likely to materialise in larger organisations. Resourcing of TPI

activity will be discussed in greater detail later in this chapter and during the analysis of semi-structured interviews in Chapter 5.

There does not appear to be a world-wide standard for the classification of entities according to their size. In Australia, the Corporations Act 2001, Section 45A, classifies organisation as either small or large, as shown in Table 4.14.

Table 4.14: Firm size categorisation in Australia

Small	Large
Small proprietary company (meets at least two criteria in one financial year)	Large proprietary company (meets at least two criteria in one financial year)
Consolidated revenue of less than \$25 million	Consolidated revenue of \$25 million or more
Value of gross assets less than \$12.5 million	Value of consolidated gross assets of \$12.5 million or more
Fewer than 50 employees at the end of the financial year	50 or more employees at the end of the financial year

The categorisation shown at Table 4.14 is too restrictive and has the potential to limit the data analysis. In looking at other nations, New Zealand does not appear to have a common administrative definition, varying between using taxes on employee salaries and turnover as markers for classification. In the USA, organisations are classified as a small business if they have fewer than 500 employees, a measure that would not be applicable to the Australian business environment. I argue that a more useful method of firm categorisation is the one used by the European Union, in accordance with the European Commission Recommendation 2003/61/EC, whose criteria are summarised at Table 4.15.

The EU classification was chosen, because, unlike the Australian one that either categorises a firm as large or not, the EU classification allows for greater data analysis due to its greater number of enterprise categories. For the purposes of the survey, the EU values were converted to approximate AUD equivalents.

Table 4.15: European Union firm size categorisation (Lindner 2005, p. 9)

Enterprise	Employees	Annual Turnover	Annual Balance Sheet	Autonomous (controlling interest)
Micro Enterprise	1 to 9	< 2 million Euro	< 2 million Euro	25% or more of the capital or voting rights of another enterprise
Small Enterprise	10 to 49	< 10 million Euro	< 10 million Euro	
Medium Enterprise	50 to 249	< 50 million Euro	< 43 million Euro	
Large Enterprise	More than 250	> 50 million Euro	> 43 million Euro	

Responses from 14 large enterprises (44%); 14 from medium enterprises (44%); 3 from small enterprises (9%); and one micro enterprise (3%). For the purposes of further analysis and discussion, due to their small numbers, the small and micro enterprises have been combined.

The gender of respondents, as shown in Table 4.16, was skewed towards females in total, particularly in medium enterprises, and this appears to be the result of response bias, as the total share of women in management roles in 2019 was at most 39.4% according to Cassells and Duncan (2020, p. 14).

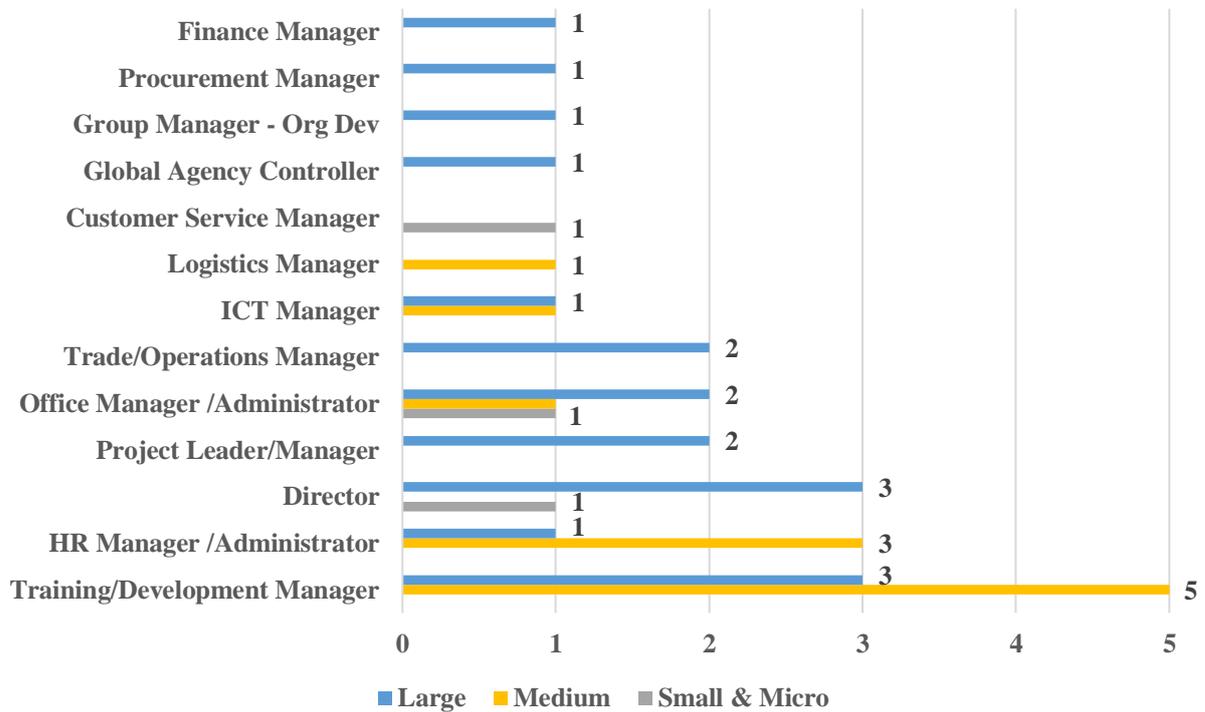
Table 4.16: Gender distribution by firm size

Enterprise size	Gender		
	Female (% within enterprise size)	Male (% within enterprise size)	Totals (% of total enterprises)
Large	6 (43%)	8 (57%)	14 (44%)
Medium	11 (79%)	3 (21%)	14 (44%)
Small & Micro	2 (50%)	2 (50%)	4 (12%)
Totals (% of total enterprises)	19 (59%)	13 (41%)	32 (100%)

(percentages have been rounded to the nearest integer) (own elaboration)

In terms of respondent's job roles, as shown in Figure 4.4, there was a diverse range of positions, with the majority of respondents held job roles in the training and development (n = 8) and HR areas (n = 4) and directors (n = 4).

Figure 4.4: Job role by firm size



(n = 32 - own elaboration)

As TPI activities require host organisation ‘buy-in’ the job roles of respondents appears to correlate well with the concept of TPI. It is high likely that the HR department would be involved in the process of the teacher becoming *in situ*. Where training and development is anticipated for the teacher *in situ*, such as induction, the host organisation staff responsible for these facets would become involved. Likewise, there would be involvement from the training and development staff of the host organisation where the teacher may provide education and training employees *in situ*. Directors have an important influential and decision-making role on whether to support TPI activities, or not, depending on whether they see value in it.

The age distribution of participants is summarised at Table 4.17, where it can be observed that the largest percentage of respondents overall was in the 50-59 age group, mainly from medium and large enterprises. The second largest age group was the 40-49,

virtually all from medium enterprises and the third largest group was represented by 18-39 mainly from large enterprises.

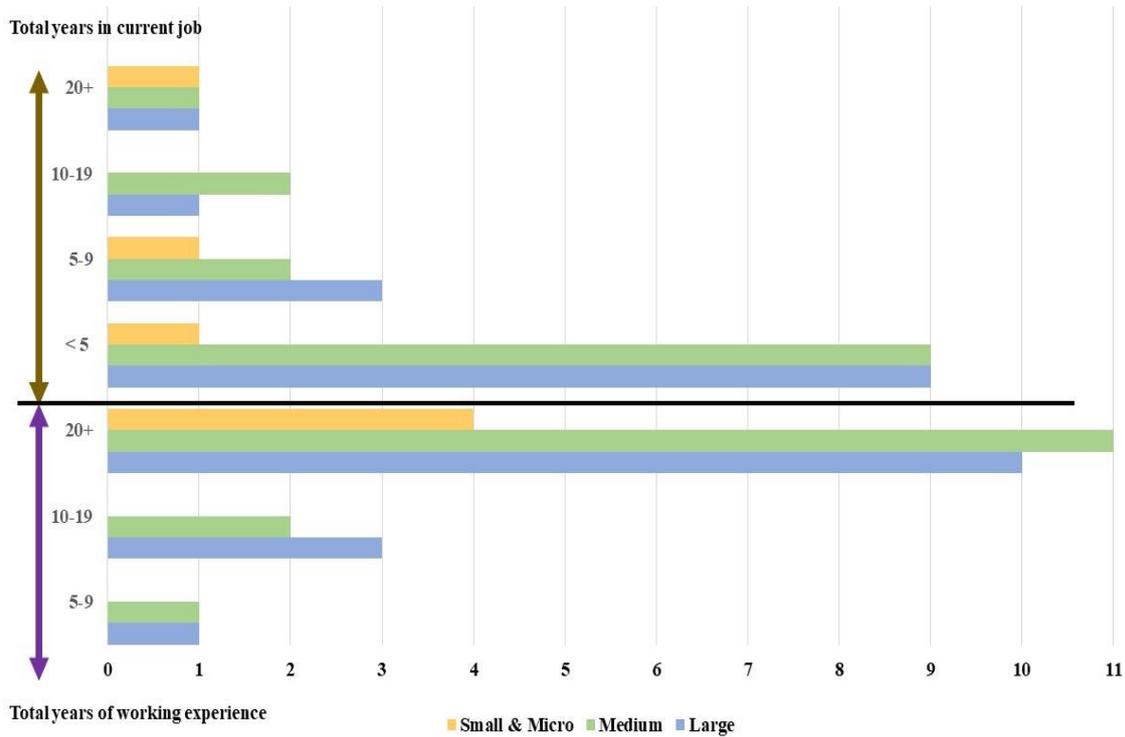
Table 4.17: Age distribution by firm size

Enterprise size	Age (yrs)				Totals (% of total enterprises)
	18-39 (% within enterprise size)	40-49 (% within enterprise size)	50-59 (% within enterprise size)	60+ (% within enterprise size)	
Large	5 (35.7%)	1 (7.1%)	6 (42.9%)	2 (14.3%)	14 (43.8%)
Medium	1 (7.1%)	6 (42.9%)	7 (50%)	0 (0%)	14 (43.8%)
Small & Micro	0 (0%)	0 (0%)	3 (75%)	1 (25%)	4 (12.4%)
Totals (% of total enterprises)	6 (18.8%)	7 (21.9%)	16 (50%)	3 (9.4%)	32 (100%)

(percentages have been rounded to the nearest one decimal point) (own elaboration)

In analysing respondents' working experience, as summarised in Figure 4.5, it can be observed that most respondents had only been in their current role for less than 5 years, however, nearly all of them had a total individual working career of 20 years or more, meaning they bring a wealth of prior knowledge and skills to this study. In aggregate, these managers had between 560 and 613+ years of working experience, which is equivalent to between 17.5 and 19.15+ years for each individual. Additionally, these managers were responsible for between 93 and 180 staff. I regard their collective voice of experience to be an important consideration due to the complex and multi-faceted nature of TPI activities, and the crucial role managers play in facilitating placements for external parties (teachers) - without host organisation management support there simply would not be any TPI activities.

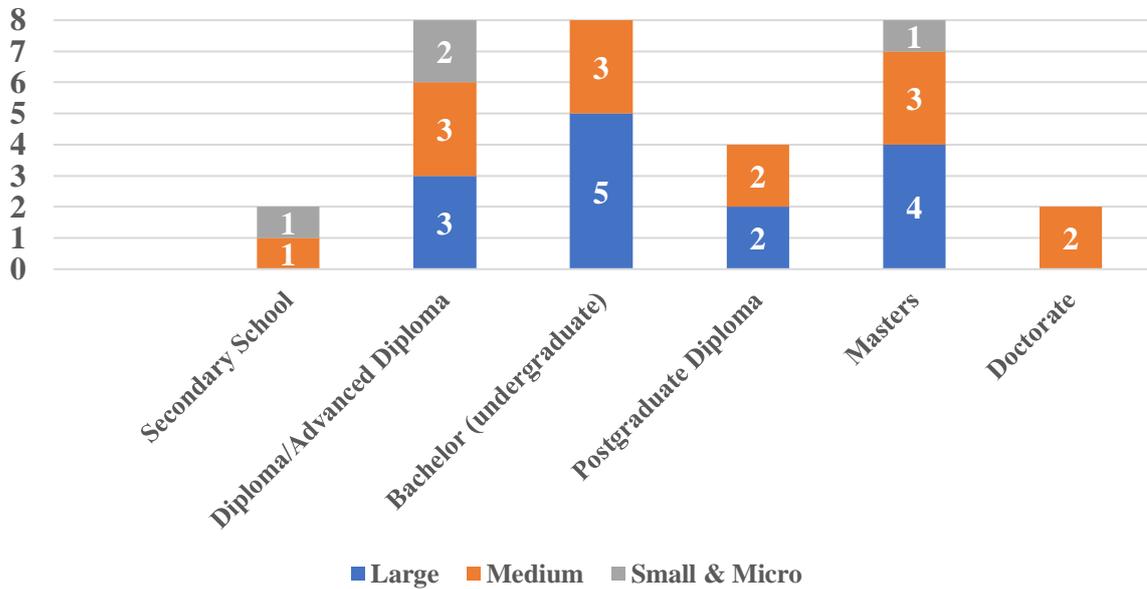
Figure 4.5: Total years of working experience and years in current job by firm size



(n = 32 - own elaboration)

As anticipated, participants had varying qualifications, as summarised in Figure 4.6. Only two respondents had secondary school qualifications – one each from small and medium enterprises. Diploma/Advanced Diploma, Bachelor and Masters were the main qualifications, with the large enterprise having a marginally higher level in general. Formal qualifications do not have the same focus in private enterprise as they do in academia, because the emphasis on advancement in the private sector is on experience and skills acquired during career progression and not on completing an academic course.

Figure 4.6: Qualifications by firm size



(n = 32 - own elaboration)

When asked about knowledge of TPI concepts, the responses were almost even across all firm sizes. In total 53% of participants (n=17) answered positively and 47% (n =15) negatively. When compared with the responses from HE (37% positive) and VET (74%) positive, industry responses sit between their counterparts. Only a total of 10 (31%) respondents had ever been involved in hosting a teacher on placement, with medium enterprises (n = 6) featuring as the highest, but on further analysis these experiences were with students on placements, rather than teachers. When asked if they were interested in hosting students on placements, 67% responded positively. For these managers, there seems to be a significant lack of exposure/experience with TPI opportunities, and I believe this factor to be a hindrance in the realisation of such opportunities. The low industry participation rate in TPI opportunities is testament to the fact that these activities are not highly supported. There may be several contributing factors that could explain the status quo, such as the inability of the firm to host a teacher due to environmental

constraints (lack of physical resources: space, equipment, etc.), or the lack of available staff to ‘supervise’ the teacher, or have them shadow an employee. I acknowledge there would be an amount of disruption caused by the teacher being *in situ*, but the disturbance also creates a place where new learning and the transformation of practices can occur (Engeström, 2011; Engeström & Kerosuo, 2007; Wenger, 2010).

The following sections address each of the subsidiary research questions. The survey provided a number of statements in relation to the different aspects of TPI, and these have been grouped in ‘clusters’ under each of the subsidiary research question responses presented below. Responses were recorded against a 5-point Likert scale, ranging from Strongly Agree to Strongly Disagree. It should be noted that to simplify the display of the results into a more readable format in the tables, where appropriate, the Strongly Agree and Agree responses were combined (A), as were the Disagree and Strongly Disagree (D) – Neutral responses are shown as (N). For the benefit of the reader, each statement shows a link (in red) to each corresponding survey question.

Do Managers See Any Value in TPI initiatives?

This research question explored managers’ perceptions of the value of TPI. A summary of responses is shown at Tables 4.18 and 4.19.

TPI value- teacher

The focus of this cluster, summarised at Table 4.18, matched that of the one shown at Table 4.6, that is, the teacher building their industry currency and enhancing classroom teaching and learning practices (statements 1 and 2). There was 100% agreement to statements 1 and 2. There was also generally strong agreement across all firm sizes, that TPI may create access to a ready pool of graduates (statement 3). Responses from industry managers are higher than those reported by their education counterparts in Table 4.6,

especially from the HE sector. Industry managers' responses suggest they place a higher value on TPI activities than education managers and that seems to be counter-intuitive, however, the reasons for this are not known.

TPI value - host organisation

The focus of this cluster summarised at Table 4.18 was on the value the host organisation may derive from TPI activities. The opportunities for staff training to be conducted by the teacher *in situ* for the benefit of the host firm employees had strong support from large and medium enterprises respondents. Clearly, they saw benefits in being able to utilise the teacher's knowledge for the development of their own workforce. What would also be possible, although not specifically canvassed in the survey, is that the teacher could not only provide staff training, but could also be involved in Recognition of Prior Learning (RPL) processes for the host firm staff. RPL would provide advanced standing against units of study that would provide advanced standing against the attainment of any formal qualifications.

Having the teacher engaged in mutually beneficial projects and/or with other staff *in situ* ranked highly with large and medium firm respondents. Of note was the difference in responses on working autonomously between large firms (9 out of 12) and medium firms (3 out of 12), although the reason for this difference is not known. In summary, based on the responses for these statements, managers from private firms, regardless of enterprise size, regard TPI activities as being of benefit to both their organisation and the teacher *in situ*.

However, curiously, responses to statement 6 in Table 4.18 appear to contradict the otherwise generally positive attitude to TPI activities, as half of the respondents, in aggregate, agreed there was no real benefit from hosting a teacher on placement.

Similarly, responses from education managers (Table 4.6) were ambivalent about the value of TPI initiatives. These are contradicting and enigmatic responses, however, the reasons for this are unknown.

Table 4.18: Managers' perception of TPI value: Teacher and host organisation

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
TPI value – teacher									
1. Time spent in industry would help teachers build their knowledge of current industry practices that are relevant to their fields of teaching Q 18 (1)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
2. Teacher industry placement may enhance classroom teaching and learning practices Q 18 (3)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
3. Teacher industry placement may provide the host firm with access to a ready pool of graduate recruits Q 18 (4)	11 (39%)	1 (4%)	0 (0%)	8 (29%)	2 (7%)	2 (7%)	3 (11%)	1 (4%)	0 (0%)
TPI value – host organisation									
4. If it gave access to a skilled academic or TAFE/VET teacher to deliver relevant in-house staff training and/or provide other forms of operational/ administrative support within my organisation Q19 (1)	10 (36%)	2 (7%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	2 (7%)	0 (0%)	2 (7%)
5. To engage in mutually beneficial joint project work of value to my organisation and the teacher and/or their academic institution Q 19 (4)	9 (32%)	3 (11%)	0 (0%)	9 (32%)	3 (11%)	0 (0%)	1 (4%)	2 (7%)	1 (4%)
6. There is no real benefit to be gained from my department or organisation, in hosting a teacher industry placement arrangement Q20 (2)	6 (21%)	2 (7%)	4 (14%)	6 (21%)	3 (11%)	3 (11%)	2 (7%)	0 (0%)	2 (7%)
7. Teacher working alone (autonomously) Q21 (7)	9 (32%)	2 (7%)	1 (4%)	3 (11%)	7 (25%)	2 (7%)	1 (4%)	2 (7%)	1 (4%)
8. Teacher working in a team; on projects; and/or working with staff across different departments Q 21 (8)	9 (32%)	3 (11%)	0 (0%)	8 (29%)	3 (11%)	1 (4%)	1 (4%)	2 (7%)	1 (4%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages of the total number have been rounded to the nearest integer. (n = 28) (own elaboration)

TPI value – networking

This cluster summarised at Table 4.19 focused on industry-academia relationships that may lead to mutually beneficial outcomes through various forms of collaboration.

Taken in aggregate, responses to the statements in this cluster were an average of 88% positive.

The focus of these statements was on the mutuality of benefits as TPI initiatives, to be sustainable, should naturally be of benefit to all key stakeholders. Networking by its very nature, invokes brokering activities that strengthen knowledge work. The value that comes from knowledge being shared and created across different workplace domains expands individual and organisational capacities and can contribute to innovation and increase productivity (Fuller & Unwin, 2003; Meyer, 2010; Wenger, 1998b).

Table 4.19: Managers' perception of TPI value: Networking

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
TPI value - networking									
1. Teacher industry placement enables teachers and industry professionals to work together on mutually beneficial projects that may build capacities for the host firm and the educational institution Q 18 (2)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
2. Teacher industry placement may lead to mutually beneficial project work between our organisation and the educational institution Q 18 (12)	12 (43%)	0 (0%)	0 (0%)	9 (32%)	3 (11%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
3. Educational institutions should promote strategic industry alliances through teacher industry placements Q 17 (9)	10 (36%)	0 (0%)	2 (7%)	12 (43%)	0 (0%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
4. Teacher industry placement supports networking between teachers and industry professional Q 18 (5)	12 (43%)	0 (0%)	0 (0%)	11 (39%)	0 (0%)	1 (4%)	3 (11%)	0 (0%)	1 (4%)
5. To create beneficial opportunities Q 19 (6)	9 (32%)	3 (11%)	0 (0%)	10 (36%)	2 (7%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
6. Teacher industry placement may bring closer forms of co-operation between industry-academic that are mutually beneficial for the parties involved Q 18 (6)	12 (43%)	0 (0%)	0 (0%)	9 (32%)	3 (11%)	0 (0%)	3 (11%)	1 (4%)	0 (0%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages of the total number have been rounded to the nearest integer. (n = 28) (own elaboration)

It is clear that private enterprise managers saw benefits in developing networks with the teacher *in situ*, and their institution, and becoming involved in project work. Although

the statements in this cluster are not the same as those in Table 4.7, their focus is unchanged, and it can be noted that there is a reasonable correlation between managers' responses across all cohorts.

There seems to be a high degree of goodwill towards the promotion of academia-industry alliances, driven by education institutions (statement 3). In fact, only two large and one small/micro enterprises did not agree with this approach. In a separate, but related, question, participants were asked the following: *In your view, should more be done to nurture mutually beneficial alliances between educators and industry, to support workplace learning, build organisational capacities and prepare work ready graduates?* The response was overwhelmingly yes, with only one respondent (large enterprise) answering negatively. Yet, the success rate and the level of materialisation of such partnerships remains elusive to quantify. This topic will be discussed further in Chapter 5, where the semi-structured interview data is analysed and discussed.

What Kind of Learning May Be Needed, By Whom and For Whom?

Participants were provided with several statements, as shown in Tables 4.20 to Table 4.22.

Teacher knowledge and skills requirements

Responses to this cluster are summarised at Table 4.20. The focus of this cluster was on what private enterprise managers believed the teacher's knowledge and skills ought to be, and whether educational institutions prepared students for the world of work.

Regardless of enterprise size, in relation to statements 1 and 2, there was 100% agreement (n= 28) that teachers must be equipped with knowledge of current industry practices; and that teachers should understand of what kinds of skills, knowledge and attitudes are needed in workplaces today. In relation to statement 3, only one respondent

(4%) from a large organisation did not agree that TPI may connect the world of work to the classroom by the teacher acquiring knowledge of jobs, career fields and work opportunities for students. Notwithstanding these results, 40% agreed that teachers were out of touch with the demands of current workplace practices (statement 3), with 36% being neutral and only 15% disagreeing with that statement. These responses highlight a ‘reality disjoint’ between what industry expects teachers to know, and what they believe teachers know. If we accept the responses from the survey, it seems logical to conclude that there is a potential knowledge gap between what should be known and what is known and, consequently, some up-skilling would be required. TPI activities seem ideally suited to provide opportunities for teachers to gain industry currency updates, in order to create more work-ready graduates. My assertion appears to be supported by responses to statement 5, where 68% of industry managers agreed that graduates were often ill-equipped with the skills, knowledge and attitudes expected by them. Furthermore, responses to statements 6 and 7 indicated that educational institutions failed to prepare students for the world of work. Only 25% of respondents believed universities sufficiently prepared students to enter the workforce and only 39% believed VET sufficiently prepared students to enter the workforce. Whilst it is not surprising that VET would fare better in this metric, due to their more practical and industry-based education approach, the responses nevertheless paint a poor picture in the link between education outcomes and the world of work expectations. Given teachers have a fundamental part in developing curricula and classroom activities, the responses suggest there is a strong need to make changes to what students are taught, in order to enter the workforce more successfully. It stands to reason that, in order to incorporate different materials in the classroom, the teacher must first know what that new material is. For the teacher to be up-to-date with

contemporary industry practices, they must be immersed *in situ*, the very purpose of the TPI concept.

Regardless of firm size, in relation to statements 8 and 9 there was 100% agreement from respondents that TPI activities build teachers' knowledge of current work practices and influence teaching practices, thereby contributing to curriculum development to better meet the needs and demand of today's workplaces. Taken together the responses to these statements signal an overwhelming agreement from these managers about the benefits a teacher may accrue from a TPI experience. This correlates with existing literature on teachers' experiences of TPI activities, as outlined in Chapter 2, indicating a convergence between lived experiences and managers' perceptions on the value of TPI.

Statement 10 focused on opportunities for developing e-learning educational material, and the majority of respondents (79%), across all enterprise sizes, agreed. E-learning opportunities may benefit both the educational institution and the host organisation. The HE and VET systems in Australia have progressively moved to more on-line delivery of courses and reliance on electronic materials, to reduce costs, and provide a more flexible learning environment for their students.

The same principles can equally apply to private enterprises, and often staff professional development in companies is organised through on-line courses. Having been *in situ* the teacher may not only be able to develop training materials for the host organisation employees, but also potentially develop new classroom materials based on their TPI experience (Miettinen et al., 2009). Indeed, I can attest to this from my own TPI experiences, where in the post-placement period, I was able to introduce authentic workplace artefacts and practices in classroom activities, to enhance the curriculum, make

it more relevant to contemporary industry practices to enrich the students' learning to produce more 'work-ready' graduates.

Table 4.20: Learning needed by whom and for whom?

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Teacher knowledge and skills requirements									
1. Teachers must be equipped with knowledge of current industry practices Q 17 (1)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
2. Teachers should have an understanding of what kinds of skills, knowledge and attitudes are needed in workplaces today Q 17 (2)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
3. Teacher industry placements may connect classroom learning to the world of work, including teacher knowledge of jobs, career fields, and work opportunities for students Q 18 (11)	11 (39%)	0 (0%)	1 (4%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
4. Teachers are out of touch with the demands of current workplace practices Q 17 (3)	5 (18%)	4 (14%)	3 (11%)	5 (18%)	4 (14%)	3 (11%)	1 (4%)	2 (7%)	1 (4%)
5. Graduate recruits are often ill-equipped with the skills knowledge and attitudes expected by today's employers Q 17 (4)	8 (29%)	3 (11%)	1 (4%)	8 (29%)	3 (11%)	1 (4%)	3 (11%)	1 (4%)	0 (0%)
6. Universities adequately prepare students for the world of work Q 17 (5)	4 (14%)	4 (14%)	4 (14%)	0 (0%)	3 (11%)	9 (32%)	0 (0%)	1 (4%)	3 (11%)
7. The vocational education and training system adequately prepares students for the world of work Q 17 (6)	5 (18%)	4 (14%)	3 (11%)	5 (18%)	6 (21%)	1 (4%)	1 (4%)	1 (4%)	2 (7%)
8. Teacher industry placements are a way to build teacher's knowledge of current workplace practices Q 18 (7)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
9. Teacher industry placements may contribute to curriculum development that better meets the needs of today's workplaces Q 18 (8)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)
10. Teacher industry placements may build e-learning opportunities between host firm and educational institution Q 18 (9)	10 (36%)	0 (0%)	2 (7%)	9 (32%)	0 (0%)	3 (11%)	3 (11%)	0 (0%)	1 (4%)
11. Teacher industry placements may influence teaching practices to make them more relevant to the current world of work Q 18 (10)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	4 (14%)	0 (0%)	0 (0%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages of the total number have been rounded to the nearest integer. (n = 28) (own elaboration)

Circumstances for accepting a teacher on placement by the host firm

This cluster focuses on the circumstances under which host firms would accept a teacher on placement; what opportunities there may be for on-site learning by the teacher and the organisation's employees; and what workplace participation the teacher may be allowed. A summary of these responses is shown at Table 4.21.

Regardless of enterprise size, in relation to statement 1, most respondents (72%) would host a TPI arrangement to enable the teacher to gain insights into their organisation's business practices, relevant to their area of teaching specialisation. However, for the purposes of building individual and organisational knowledge (statements 2 and 3), this was slightly less acceptable, with between 69% and 72% of respondents, across all enterprise sizes, in agreement. These responses are indicative of open-minded managerial values that create an expansive work environment that supports workplace learning.

On-site learning opportunities for the teacher *in situ*

The focus of this cluster was on what learning opportunities may be available for the teacher *in situ* (statements 4 to 7 in Table 4.21). Regardless of firm size most of the responses to these statements were positive, ranging between 65% (coaching and mentoring by host firm staff), and 79% (job shadowing). This suggests these managers are willing to commit internal resources for the benefit of the teacher and signal expansive workplaces, ones where knowledge transfer would occur.

Host firm staff CPD

This cluster focuses on likely opportunities for the teacher to 'give back' to the host firm via staff development activities (statements 8 to 11 in Table 4.21). Responses to these statements were marginally favourable, ranging from 54%-68%, except for statement 10 that scored 86%. Statement 10 refers to the utilisation of the teacher's knowledge and expertise to support the host firm's staff development needs. The high level of agreement to this statement

suggests these managers place a high value on the teacher's knowledge and expertise, highlighting the reciprocal nature of workplace learning (Billett, 2008) through participation in TPI activities. On the one hand the host firm invests in the teacher's learning, and on the other hand, gets something back, by the teacher becoming involved in staff development through training. This also exemplifies the application of Wenger's (1998b) conceptualisation of the three dimensions of learning that support a community of practice, that is, mutual engagement, shared repertoire, and joint enterprise.

Table 4.21: Circumstances for accepting teacher on placement - on-site learning opportunities for the teacher and host firm staff CPD

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Circumstances for accepting a teacher on placement									
1. To support academic and/or TAFE/VET teachers who wish to gain insights into some aspects of our business practices that are relevant to their areas of teaching Q 19 (2)	9 (32%)	3 (11%)	0 (0%)	8 (29%)	4 (14%)	0 (0%)	3 (11%)	1 (4%)	0 (0%)
2. To build organisational knowledge and support workplace learning Q 19 (3)	8 (29%)	1 (4%)	3 (11%)	10 (36%)	0 (0%)	2 (7%)	2 (7%)	1 (4%)	1 (4%)
3. To build organisational and individual capacities across organisational boundaries Q 19 (5)	10 (36%)	2 (7%)	0 (0%)	8 (29%)	4 (14%)	0 (0%)	1 (4%)	2 (7%)	1 (4%)
On-site learning opportunities for the teacher									
4. Job shadowing (e.g. visiting worksite and observing the work performed by employees) Q 21 (1)	11 (39%)	1 (4%)	0 (0%)	10 (36%)	2 (7%)	0 (0%)	1 (4%)	2 (7%)	1 (4%)
5. Coaching and mentoring by our staff Q 21 (2)	8 (29%)	3 (11%)	1 (4%)	9 (32%)	3 (11%)	0 (0%)	1 (4%)	2 (7%)	1 (4%)
6. Develop an understanding of our company policies and procedures Q 21 (3)	11 (39%)	1 (4%)	0 (0%)	7 (25%)	5 (18%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
7. Skill development (job/task specific; generic /soft / interpersonal; business context specific skills, etc.) Q 21 (4)	10 (36%)	2 (7%)	0 (0%)	9 (32%)	3 (11%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
Host firm staff CPD									
8. Planning and delivery of relevant work-based on-site training to employees by the teacher Q 21 (5)	8 (29%)	3 (11%)	1 (4%)	9 (32%)	2 (7%)	1 (4%)	2 (7%)	1 (4%)	1 (4%)
9. Developing work-based on-line training material to support the host firm's staff Q21 (6)	8 (29%)	4 (14%)	0 (0%)	5 (18%)	4 (14%)	3 (11%)	2 (7%)	1 (4%)	1 (4%)
10. The teacher's subject/discipline knowledge and expertise would be utilised to support our own staff development needs Q 22 (5)	11 (39%)	1 (4%)	0 (0%)	10 (36%)	2 (7%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
11. Teachers supporting HR initiatives. Developing staff training (including on-line material): delivering in-house training to support staff professional development programs relevant to the needs of our organisation Q 21 (9)	10 (36%)	1 (4%)	1 (4%)	5 (18%)	5 (18%)	2 (7%)	1 (4%)	2 (7%)	1 (4%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages of the total numbers have been rounded to the nearest integer. (n = 28) (own elaboration)

Opportunities for teacher workplace participation and decision-making

This cluster focused on the level of teacher participation in the hands-on use of equipment and technology, as well as involvement in internal decision-making processes, as summarised in Table 4.22. The statements were design to discover the level of integration afforded to the teacher *in situ*. The medium firms (32%) appear to be more disposed to the teacher's use of equipment and technology (statement 1), whereas large firms (39%) are more supportive of the teacher's participation across different areas and working with different teams (statements 2 and 3). Under these circumstances, in a large firm the teacher is more likely to be exposed to a wider variety of job roles, tasks, and environments, thus enriching the teacher's knowledge about the industry, knowledge that can in turn be utilised to make the curriculum more work relevant for students' future entry into the workforce.

Responses to internal decision-making participation by the teacher were less positive. When considering the results across all firm sizes, opinion was almost evenly divided as to whether the teacher should have any involvement at all in internal decision-making (statement 4). Only 39% of respondents agreed that the teacher should be involved in workplace decisions, with 25% being neutral, and 36% in disagreement. However, there was overall stronger support (61%) for the teacher to have some involvement in workplace decisions, depending on the job/task requirements. The willingness of firms to have the teacher participate in decision-making and judgement engages them more fully in forms of mediation around the activities of the workplace, thus moving the teacher away from a position of peripherality.

Table 4.22: Opportunities for teacher workplace participation and decision-making

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Opportunities for teacher workplace participation									
1. Hand-on experiences using equipment and technology within the organisation Q 21 (10)	6 (21%)	6 (21%)	0 (0%)	9 (32%)	3 (11%)	0 (0%)	1 (4%)	2 (7%)	1 (4%)
2. Teacher participation in other areas/work teams would be encouraged Q22 (3)	11 (39%)	0 (0%)	1 (4%)	6 (21%)	6 (21%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
3. Teacher participation in different/other areas/work teams would be encouraged Q 22 (4)	11 (39%)	0 (0%)	1 (4%)	5 (18%)	7 (25%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
4. The teacher would have no involvement in workplace decisions Q 22 (1)	5 (18%)	2 (7%)	5 (18%)	3 (11%)	5 (18%)	4 (14%)	2 (7%)	0 (0%)	2 (7%)
5. The teacher would have some involvement in workplace decisions, depending upon jo/task requirement Q 22 (2)	7 (25%)	2 (7%)	3 (11%)	9 (32%)	2 (7%)	1 (4%)	1 (4%)	0 (0%)	3 (11%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (n = 28) (own elaboration)

What Are the Challenges of Implementing and Supporting TPI Activity?

This question focused on the various challenges of implementing and supporting TPI activities, and the institutional resources implications. A summary of responses is provided in Table 4.23. In response to statement 1, medium enterprises respondents highlighted the lack of organisational resources to TPI at a much greater rate than either large or small/micro enterprises. Three out of the four small/micro firm responses indicated that hosting a teacher would place too much burden on their staff (statement 2), whereas only five out 12 for each of the large and medium firms that agreed with this statement. Firm size may be an important consideration in these responses, as the larger the firm, the comparatively easier it may be to ‘absorb’ another person (the teacher).

In relation to external funding for TPI schemes (statements 3 and 4), most respondents preferred government incentives, such as tax breaks, to eliminate or reduce expenditure, rather than a fully funded government program. The reasons for the preference is not known, but one explanation may be that if the host firm can use tax deductions, it can choose who to host and how, whereas if it is government funded, the conditions may be perceived as less generous/appealing as a result of more bureaucracy in the process.

In terms of internal funding for hosting a placement, out of the 24 responses received, only three large and one medium enterprise would be willing to pay the teacher for work done *in situ*, with the remaining 20 only interested in a free placement. Clearly, these responses indicate that despite the good intentions about TPI activities, funding is a major hurdle and private enterprise is not particularly philanthropic in terms of TPI initiatives.

Table 4.23: Funding and resourcing

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Host organisation resources									
1. Our organisation lacks the resources to support it Q 20 (3)	4 (14%)	3 (11%)	5 (18%)	8 (29%)	2 (7%)	2 (7%)	2 (7%)	1 (4%)	1 (4%)
2. It would place too much of a burden on our staff Q20 (4)	5 (18%)	3 (11%)	4 (14%)	5 (18%)	5 (18%)	2 (7%)	3 (11%)	0 (0%)	1 (4%)
External funding assistance									
3. Government funded teacher industry placements should be supported by the business community to help build educators' knowledge of current industry practices Q 17 (7)	5 (18%)	4 (14%)	3 (11%)	5 (18%)	4 (14%)	3 (11%)	1 (4%)	2 (7%)	1 (4%)
4. Corporate funded teacher industry placements should be supported by government measures (e.g., tax breaks) to help build educator's knowledge of current industry practices Q 17 (8)	8 (29%)	3 (11%)	1 (4%)	8 (29%)	3 (11%)	1 (4%)	2 (7%)	1 (4%)	0 (0%)
Internal funding assistance									
5. My organisation would be prepared to pay a teacher for their industry placement work Q 28 (1)	3 (13%)			1 (4%)			0 (0%)		
6. My organisation would only consider a free teacher industry placement Q 28 (2)	9 (38%)			9 (38%)			2 (8%)		

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (Statements 1 – 4 n = 28; Statements 5 -6 n = 24) (own elaboration)

The issues raised in this section will be explored in greater detail in Chapter 5, through the analysis and discussion of semi-structured interview data.

How Might TPI Opportunities Be Improved to Provide Greater Benefits to All Stakeholders?

This question focuses on the various ways in which TPI opportunities may be improved, and also considers the preferred duration of placements.

Host firm resource availability

Managers were asked about planning, resources and skills matching for the teacher *in situ*. The responses are summarised in Table 4.24 and 4.25.

As can be noted from Table 4.24, for the host firm, in general, regardless of size there appears to be a good allocation of internal resources, with the exceptions of designated computer with access rights and access to the worksite. Although reported in the minority of cases, these considerations may be due to the host firm wishing to mitigate the risks of providing secure access rights to an external person (the teacher on placement).

Table 4.24: Host firm resource availability

Statement	Enterprise Size					
	Large		Medium		Small/micro	
	Yes	No	Yes	No	Yes	No
Host firm resource availability						
1. Induction to your organisation Q 27 (1)	12	0	10	0	1	1
2. Designated work area (e.g. desk or workstation) Q 27 (2)	11	1	9	1	2	0
3. Designated computer with appropriate access rights Q 27 (3)	8	4	9	1	2	0
4. Staff mentors Q 27 (4)	10	2	9	1	2	0
5. Appropriate access to company policy and procedures Q 27 (5)	11	1	10	0	2	0
6. Access to other relevant organisational information/resources Q 27 (6)	10	2	10	0	2	0
7. Security access to the worksite (e.g. ID, security pass/codes, etc) Q 27 (7)	9	3	6	4	1	1
Totals (% within firm size)	79 (86%)	13 (14%)	63 (90%)	7 (10%)	12 (86%)	2 (14%)

(n=24) (own elaboration)

The degree to which these limitations may impact the teacher's ability to carry out tasks *in situ* remains unclear. This highlights the importance of pre-placement negotiations, to ensure that what is agreed to can be done once the placement commences.

Pre-Planning

Responses are summarised at Table 4.25. For statement 1 to 3, there was significant agreement on the need to demonstrate pre-planning between the host firm, the teacher and their educational institution (89%); the clear establishment of goals and objectives (96%); and achieving close alignment between the teacher's skills and aptitudes and the needs of the host firm (89%).

Table 4.25: Planning, resources, and skills matching

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Host organisation resources									
1. Demonstration of adequate pre-planning between our organisation, the teacher, and the educational institution prior to the commencement of the placement Q 23 (2)	12 (43%)	0 (0%)	0 (0%)	10 (36%)	1 (4%)	1 (4%)	3 (11%)	0 (0%)	1 (4%)
2. Evidence of clearly established goals and objectives to guide the industry placement arrangement Q 23 (3)	12 (43%)	0 (0%)	0 (0%)	12 (43%)	0 (0%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
3. Achieving close alignment between the teacher’s skills and aptitudes, and the needs of our organisation Q23 (1)	11 (39%)	1 (4%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
4. Providing the teacher with access to adequate resources to support the industry placement initiative (e.g. induction; working space; work equipment; staff mentors, etc.) Q 23 (7)	12 (43%)	0 (0%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)

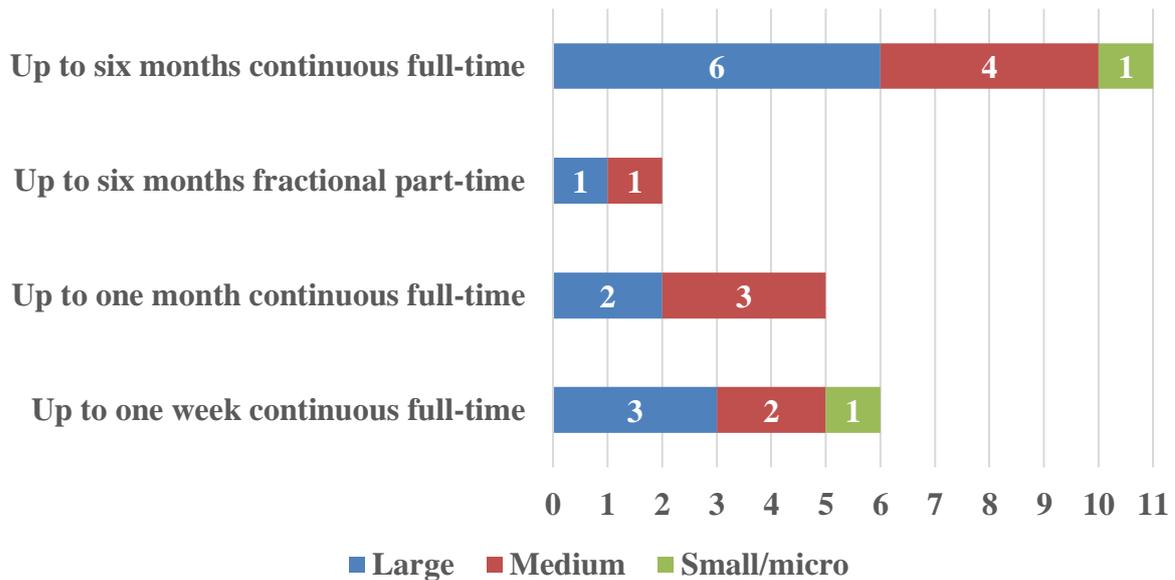
Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (n = 28) (own elaboration)

The provision of adequate resources to the teacher (92%) (statement 4) are consistent with the responses given in Table 4.11. These responses indicated agreement with the reciprocal nature of TPI arrangements requiring commitment from all stakeholders to make this endeavour successful.

Duration of TPI placement

Respondents were asked to choose the ideal placement duration from a select list. The summary of responses is shown at Figure 4.7. There was a general preference for longer periods of placements on a full-time basis across all enterprise sizes, with continuous *in situ* presence. From the choices provided to respondents, the part-time option was the least preferred.

Figure 4.7: Duration of TPI



(n = 24) (own elaboration)

These responses correlate with those from education managers in Table 4.12, where the most popular option was a full teaching semester release for full-time work in industry. These findings align with the claim by Brown and Chalmers (1990), who argued for longer placements in order to gain a meaningful exposure to, and an appreciation of the culture, attitudes and practices of the host organisation, to bring about changes to the curriculum. The question of TPI duration is further explored in Chapter 5 through the analysis and discussion of the semi-structured interview data.

How Might We Know that TPI Meets Individual and Organisational Goals?

This question focused on the evaluation of TPI activities as a means of discovering whether individual learning and organisational goals have been met. Responses are summarised at Table 4.26.

Whilst the data at Table 4.13 indicated that 23% of HE managers and 26% of VET managers believed TPI outcomes to be too vague with no real return on investments, there

was a strong opposing view, in aggregate, from industry managers (79%) (statement 1). The reason for this stark discrepancy cannot be determined from the data, however, this issue will be explored further in Chapter 5 through the analysis of the semi-structured interview data.

I acknowledge that TPI initiatives bring an element of risk and that a host firm may be reluctant to invest their resources in activities that have uncertain outcomes and benefits. However, I argue these risks can be mitigated with careful planning in the pre-placement negotiations to set parameters for the tasks and activities to be conducted *in situ*, including the respective roles of the teacher and the host firm staff. TPI activities are, by their very nature, joint enterprises, across multiple boundaries, and it is where these boundaries cross that opportunities for learning are created, but for these to be meaningful and beneficial planning is essential. Indeed,

Statement 5 to 7 indicated strong support for both the teacher and the host firm to be 'held accountable' for their part in the placement. Responses showed an expectation that that teacher would meet or exceed the host firm's expectations (86%), with satisfactory and timely completion of set work (86%), but also that there was commitment by the host firm in meeting or exceeding the teacher's professional development requirements (82%).

Finally, there was strong support for effective participation in collaboration between the key stakeholders: teacher, educational institution and the host organisation (93%), and this demonstrates once again that if host organisations are to be involved in TPI initiatives, the creation of value from these activities is an important consideration.

Table 4.26: Evaluating TPI

Statement	Enterprise Size								
	Large			Medium			Small/Micro		
	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)	A (%)	N (%)	D (%)
Host organisation resources									
1. Uncertainty about the outcomes that may be achieved from hosting a teacher industry placement Q 20 (1)	10 (36%)	1 (4%)	1 (4%)	10 (36%)	2 (7%)	0 (0%)	2 (7%)	1 (4%)	1 (4%)
5. Evidence of the teacher consistently meeting or exceeding our organisation's expectations Q 23 (4)	11 (39%)	1 (4%)	0 (0%)	10 (36%)	2 (7%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
6. The teacher's timely completion of set work, and to our satisfaction Q 23 (5)	10 (36%)	2 (7%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
7. Our organisation meeting or exceeding the teacher's professional development expectations Q 23 (6)	9 (32%)	3 (11%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)
9. Effective participation demonstrated through various forms of engagement and collaboration between the teacher, our organisation, and the educational institution Q 23 (8)	12 (43%)	0 (0%)	0 (0%)	11 (39%)	1 (4%)	0 (0%)	3 (11%)	0 (0%)	1 (4%)

Legend: A = Agree and Strongly Agree; N = Neutral; D = Disagree and Strongly Disagree. Percentages have been rounded to the nearest integer. (n = 28) (own elaboration)

Conclusion

This chapter has provided an analysis and discussion of survey data from HE, VET, and private enterprise managers about their perceptions of the value of TPI initiatives. Most of the responses between education and private enterprise converge on many topics, such as the goodwill towards the concept of TPI, however, there are also some differences in the values of each cohort, but these cannot be explained by the quantitative data from this exploratory study. A notable difference was the uncertainty of TPI activity outcomes by private firms, notwithstanding their generally positive predisposition for such activities.

Funding of TPI activities is a recognised problem and the analysis of the data revealed there was poor appetite from private firms to play a philanthropic role, rather they would

prefer the provision of tax breaks to compensate for any expense incurred in hosting a teacher on placement. Very few respondents indicated their organisation would fund TPI activities, or pay a teacher to work for them on a secondment basis. Clearly government funding is an important consideration.

For education managers, their major concerns were on the value of TPI activities, but more so from the HE sector, as their focus continues to be on research, as this is seen to be a core value of what a university should be or do.

Managers from all cohorts were in agreement as to the potential positive benefits offered by TPI activities that may not only reform the curriculum and contribute to more ‘work-ready’ graduates, but also provide opportunities for host firm staff development by utilising teacher’s knowledge and expertise. The resulting individual and organisational capacity building concepts were supported by all cohorts.

The next chapter analyses and discusses the findings from the semi-structured interviews.

Chapter 5: Manager’s Perspectives of TPI (Interviews)

“We are challenged to connect voice and perspective to praxis – acting in the world with an appreciation for and recognition of how those actions inherently express social, political, and moral values and to personalize evaluation, both by owning our own perspective and by taking seriously the responsibility to communicate authentically the perspectives of those we encounter during our inquiry.”

(Patton, 2002, p. 65)

~ ♦ ~

Introduction

To recall, a central aim of this research was to investigate HE, VET, and industry managers’ perceptions about what value there may be in affording **business disciplines** educators the opportunity to participate in TPI initiatives within their organisation.

TPI is used as a vehicle for boundary spanning between academia and industry to support workplace learning and strengthen teacher industry currency. Attention was focused upon several variables, including how TPI initiatives would likely be structured; their perceived benefits and challenges; the types of workplace roles TPI participants may engage in; and how outcomes would be evaluated.

Data was gathered from semi-structured interviews conducted either in person, or via telephone, and subsequently categorised into themes. To recall, I developed a number of themes for the semi-structured interviews, drawing from the survey questions and my own previous experiences with TPI activities. The themes link to the subsidiary research questions, as summarised in Table 5.1. It should be noted that Themes 1 and 2 do not directly link to any subsidiary research questions. Theme 1 is provided by way of backgrounding participants, as I believe managers’ working experience and trajectories are an important aspect of their current perceptions about TPI initiatives. Their personal

workplace experiences, coupled with the nature of their current role place them in a crucial position, as they are able to positively, or negatively, influence staff development, of which TPI is a form. Theme 2 was devised to explore managers' knowledge about TPI initiatives. Where they had prior experience in TPI initiatives, the theme aimed to identify what sort of administrative arrangements were needed, and the level of support given. Where managers had no such prior experience, this indicated a gap in their knowledge of TPI initiatives that may be a hindering factor.

Table 5.1: Semi-structured interview themes and subsidiary research questions linkage

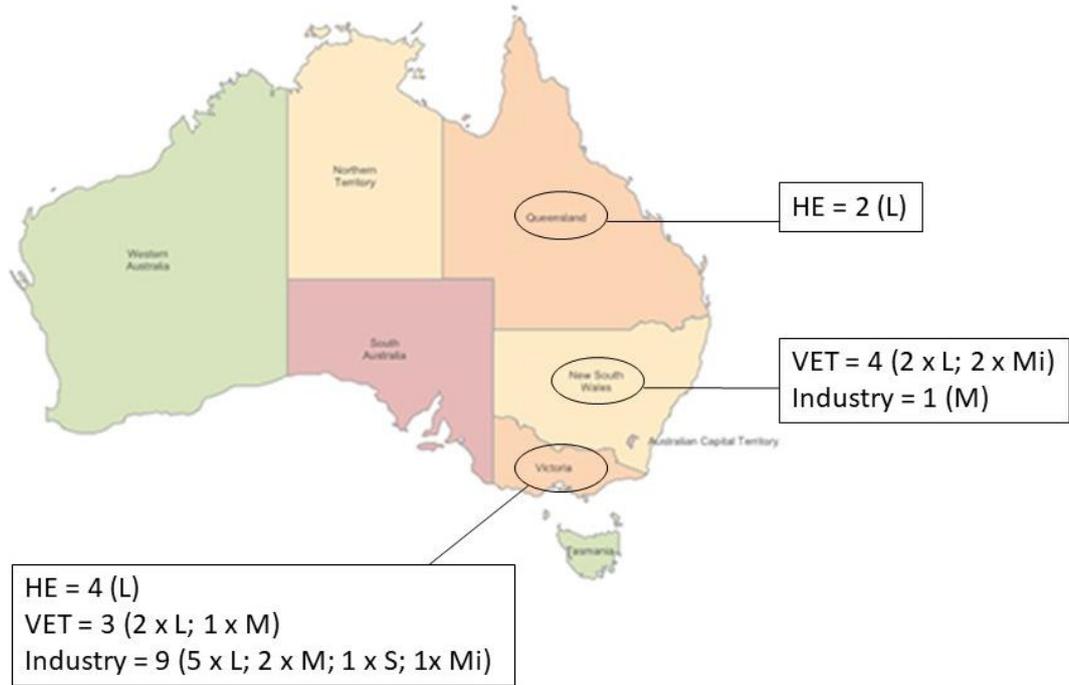
Semi-structured interview themes		Subsidiary research questions	
No	Theme	No	Question
1	Participants' demographic profiles and work trajectories	-	N/A
2	Manager's knowledge of TPI schemes	-	N/A
3	Knowledge and skills required by HE/VET educators	2	<i>What kind of learning may be needed by whom and for whom?</i>
4	Perceived benefits of TPI	1	<i>Do managers see any value in TPI initiatives?</i>
5	Challenges of implementing and supporting TPI	3	<i>What are the challenges of implementing and supporting TPI activities?</i>
6	Arrangements and duration of TPI	4	<i>How might TPI opportunities be improved to provide greater benefits to all stakeholders</i>
7	Evaluating TPI outcomes	5	<i>How might we know that TPI meets individual and organisational goals?</i>

Theme 1: Participants' Demographic Profiles and Work Trajectories

The findings from a total of 23 semi-structured interviews with individuals across the HE (n=6), VET (n=7), and Industry (n=10) cohorts are presented below. Demographic data was obtained at the beginning of each interview to provide a background on a number of issues including gender, age, qualifications, and industry experience. These data provide a general background for each cohort, to contextualize the interviews.

The geographic distribution of interviewees and firm size across all three cohorts is shown at Figure 5.1.

Figure 5.1: Geographical distribution and firm size of interviewees



Legend: L = Large Firm; M = Medium Firm; S = Small Firm; Mi = Micro Firm (own elaboration)
 (Note: map from <https://freevectormaps.com>)

As can be observed from Figure 5.1, the majority of interviewees from all cohorts were from Victoria (n=16), followed by New South Wales (n=5), and Queensland (n=2). When considering firm size, it can be noted that the majority of respondents who volunteered to be interviewed were from large and medium enterprises, with only one small enterprise and three micro enterprises being represented across the board. All HE interviewees were from large enterprises, four out of seven VET interviewees were large, one was medium, and two were micro. A similar pattern also applied to industry, with five out of nine firms being large, three medium, one small, and one micro. However, a statistical analysis of either the geographical distribution of interviewees, or their firm size would not be meaningful because of the relatively low numbers involved.

HE and VET Managers' Demographic Profiles

Demographic data for each participant is summarised in Table 5.2. A total of 13 interviews were held with seven managers each from the HE and VET sectors. It should be noted that for the purposes of the analysis of this chapter, VET and RTO have been combined. The gender distribution in HE is skewed towards males, where they account for five out of six participants (approximately 83%), whereas in VET the opposite applies, with six out of seven participants being female (approximately 86%). The reasons for this are not known and is most likely the result of sample bias. Whilst it is commonly accepted that education employment generally favours female participation, particularly in lower levels, there is no specific data available for gender distribution for managers in educational institutions, as pointed out in Chapter 4. There is no claim here that the participants are a representative sample of the wider education community.

In respect of age, in the HE sector, one participant (approximately 17%) was in the 18-39 age group; one (approximately 17%) was in the 40-49 age group; one (approximately 17%) were in the 50-59 age group; and three (approximately 50%) were in the 60 and over age group. In the VET sector, the age distribution of participants was: one (approximately 14%) in the 18-39 age group; three (approximately 42%) in the 40-49 age group; and three (approximately 42%) in the 50-59 age group. The age data loosely reflect the ageing Australian population, but population age is not the focus of the thesis. Due to the age of the participants, it was anticipated that they would generally have a considerable amount of working experience, and indeed this was the case.

Table 5.2: HE and VET manager profiles

HE and VET MANAGER PROFILES							
Name*	Gender	Age	Sector		Qualifications	Qualification %	Working Experience (yrs)
			HE	VET			
HE Managers*							
Matthew	M	40-49	X		Postgraduate Certificate	16.6%	20+
Jack	M	50-59	X		Master	16.6%	20+
Cheryl	F	60+	X		PhD	66.7%	20+
Leo	M	60+	X		PhD		20+
Mick	M	18-39	X		PhD		10-19
Richard	M	60+	X		PhD		20+
VET/RTO Managers*							
Jessie	F	50-59		X	Postgraduate Certificate	14.3%	20+
Margaret	F	50-59		X	Master	71.4%	10-19
Marta	F	40-49		X	Master		20+
Michaela	F	40-49		X	Master		20+
Nathan	M	18-39		X	Master		10-19
Rudy	M	40-49		X	Master		10-19
Stefanie	F	40-49		X	PhD	14.3%	20+

***Pseudonyms**

In the HE sector, only one participant (approximately 17%) had working experience of between 10 and 19 years, with the balance (approximately 83%) each having 20 or more years of working experience. It is estimated, that in aggregate, for this cohort, it accounts for approximately between 110 and 119+ years of working experience, or an individual average of between 18.3 to 19.8+ years of working experience. In the VET sector, four interview participants (approximately 57%) each had working experience of between 10 and 19 years, and three (approximately 43%) each had 20 or more years of working experience. It is estimated that, in aggregate, for this cohort, it accounts for approximately between 110 and 137+ years of working experience, or an individual average of between 15.7 and 19.6+ years of working experience. In comparing the data from both sectors, it can be noted that the average for HE is higher, probably as a result of different reforms between the sectors, resulting in a higher reduction of staff in the VET sector. The depth of working experience represented by each participant is considered significant as their insight should prove to be fertile ground for a deeper

understanding of the enablers and dis-enablers of TPI activities, as discussed in this chapter.

The qualifications of participants varied across both sectors. HE participants held: one Bachelor (undergraduate); one Postgraduate Certificate; one Masters; and four PhD. VET participants held: one Postgraduate Certificate; five Masters; and one PhD. It would seem that, in aggregate, the participants' commitment to build their formal education was a result of a blend of personal development and career progression aspirations, and this would form part of their working trajectories.

In the education sphere, it is generally accepted that promotions are linked to formal qualifications, especially in the HE sector, where invariably, a baseline requirement for any promotion is increasingly the attainment of a PhD qualification. The AQF level Section 3.2.3 prerequisites require a teacher to hold qualifications one level above that which they teach, and where they do not, supplementary working experience can be used as equivalent (Tertiary Education Quality Standards Agency, 2017). As can be observed from Table 5.2, the qualifications of VET participants (excluding the mandatory requirement for Certificate IV in TAE) would easily satisfy the AQF prerequisites for the typical range of courses on offer in VET. The levels of qualifications held by participant in HE are less clear, in terms of meeting AQF prerequisites. The four teachers holding a PhD may teach at any level, but the ones holding a Bachelor (undergraduate), Postgraduate Certificate and Master may have more limited teaching opportunities, however, their working experience may provide equivalence. Given that these participants generally hold administrative management roles, their teaching qualifications may not be so important, because they are unlikely to be routinely involved in classroom activities, as evidenced by their responses. As an example, Marta explained

As operations and compliance manager, I have my hands in different operational aspects of our business. I'm in charge of the trainers' compliance requirements ... of student-on-the-job training in business premises, ensuring compliance with the regulator ... Reporting to me would be five teaching staff, and then indirectly, there would be another fourteen staff, including administrative ... operational ... sales and marketing ... sometimes I train when there are no trainers available.

Industry Managers' Demographic Profiles

Demographic data were obtained from each participant at the commencement of each interview, and these are summarised at Table 5.3. A total of ten interviews were held with industry managers, as shown in Table 5.3. Interview participants were from the logistics; insurance; accounting; professional services; human resources; and IT sectors. The gender distribution of participants is skewed towards males, where they account for seven out of ten (70%). Private enterprise management is skewed towards males, as females continue to be underrepresented in management roles in most areas of employment (Workplace Gender Equality Agency, 2020) Nevertheless, there is no claim here that participants are a representative sample of the wider business community.

Table 5.3: Industry manager profiles

INDUSTRY MANAGER PROFILES					
Name*	Gender	Age	Highest Qualification	% of Qualifications	Working Experience (yrs)
Pamela	F	50-59	Diploma/Advanced Diploma	20%	36
Patrick	M	50-59	Diploma/Advanced Diploma		38
Bill	M	50-59	Bachelor (undergraduate)	30%	20
Nigel	M	40-49	Bachelor (undergraduate)		24
Valerie	F	50-59	Bachelor (undergraduate)		35
Fred	M	50-59	Post Graduate Diploma	10%	40
Luke	M	60+	Master	40%	35
Colin	M	50-59	Master		40
Trudy	F	18-39	Master		10
Garrett	M	50-59	Master		40

* Pseudonym

In respect of age, one interview participant (10%) was in the 18-39 age group; one in the 40-49 age group (10%); one in the 60 and over age group (10%) and seven were in the 50-59 age group (70%). Participants' ages are probably a reflection of the Australian population, but population age is not the focus of the thesis. Similar to the education managers cohort, it was generally anticipated that business managers would have a significant amount of working experience, and indeed this was the case. Seven participants (70%) each had more than 35 years of working experience, with the other three (30%) each having between 10 and 24 years of working experience. In aggregate terms, the interview participants represented 318 years of working experience, or an individual average of 31.8 years of working experience. The depth of working experience represented by each participant is considered to be significant, as their expertise should prove to be fertile ground for a deeper understanding of the enablers and disablers of TPI activities, as discussed in this chapter.

The qualifications of the interview participants varied, as shown in Table 5.2, with the majority holding either a Bachelor (undergraduate), or Masters degree. In comparison with the education sector, private enterprise does not seem to place such a high degree of emphasis on formal educational qualifications, preferring to focus on the qualities, skills, and expertise of their workforce, to achieve organisational goals and objectives.

Managers' work trajectories

Managers' trajectories demonstrate diverse personal histories of occupational practice, and learning, bringing each individual into sharper focus, and how their previous accumulated knowledge (formal and informal) and experience has influenced their current views on the value of TPI.

HE managers' work trajectories

Cheryl is the head of department with staff responsibilities for academics working in the banking and financial services area. Her entry into the academic profession, first as a HE teacher of finance, is a story of opportunity materialising at a time of significant personal dislocation, and the need to find work. As Cheryl explained, “*it was really a necessity being the mother of invention applying for that job*”, which then led to a “career in finance”, as she learnt “on the job” while she taught. Cheryl attributed her existing skills-set to her suitability to teach in a non-familiar disciplinary field, that “*was quite young in Australia at the time*”. Thus, it became essential for Cheryl to develop new knowledge that was previously unfamiliar to her. Whilst claiming this as “*something that wouldn't happen [in her institution] now*”. Cheryl acknowledged the role that research and teaching in the field has played in terms of developing her professional capacities, and in expanding her academic options by giving her access to more senior roles. Her experience alludes to both the agentic nature of workplace learning as influenced by individual dispositions (Billett, 2007; Billett & Noble, 2017a, 2017b; Hodkinson & Hodkinson, 2004), and the expansive nature of some workplace environments through the affordances they offer for learning (Billett, 2001; Fuller & Unwin, 2004; Unwin, 2004).

Jack holds postgraduate business qualifications and is employed as a regional coordinator, having worked in academia for 20 years. His 10 years of prior industry experience included working as a consultant and “*setting up a business department in the area of Applied Business ... with some experience overseas*”. Jack spoke of having worked his way “up the system” commencing in a “*relatively small accounting/management consulting firm, and also in a large agricultural firm ...* [looking

after] *a section or division*". His main professional interests lie in "*small business and social entrepreneurship, and also non-government organisations (NGOS) administration and governance*".

Leo spent approximately 15 years as a public sector senior executive with responsibilities in: industrial relations, small business and employment. He has held directorships in various companies over the past 25 years, and "*continues to be a director of a business management consultancy*". Leo has been a senior executive in an industry association, sitting on its "Executive Education Committee" for a number of years., as well as participating in a number of government committees such as the Skills Formation Council Leo has been a TAFE director for state-wide VET programs. Prior to entering academia, Leo was a manager in the construction industry.

Matthew has headed the Faculty of Business Marketing Department "*for the past few years*". He began his career doing "*non-legal and non-para-legal ... office work*", eventually becoming an office manager, with responsibility for 30 staff. Although he completed a science degree, he "*bizarrely ... ended up going into a ... business management role ... [that had] nothing to do with science whatsoever*". His health care industry experience spanned "*several years*", however, the dissolution of the company he worked for resulted in his returned to university to complete a business degree and now pursuing a PhD. While completing his earlier studies, Matthew was offered industry guest speaking roles through his existing networks, that subsequently fuelled his "*passion for teaching*". Matthew referred to his entry into teaching as serendipitous "*just pure ... happenstance ... 20 years ago if the organisation I was working for ... hadn't dissolved, I literally would not be here*".

Mick has worked in academia for 14 years. Graduating with an honours degree, he worked in the corporate banking sector for approximately four years. His Honours' supervisor, who later became the Dean, "*in effect ... basically got me into doing some teaching at night*", before eventually embarking upon PhD research. For the past two years he been the Business & Finance Faculty Deputy Head, with responsibilities for his department's Teaching and Learning portfolio.

Richard was first employed in a bank, but because "*the pay rate was so lousy*" and as his income was "*less than [his] rent*", he moved to a warehousing and distribution company performing manual tasks. He moved to the pharmaceutical industry, working in varied positions for the next 21 years. He notes: "*I started in accounts receivables ... [and ended up as] an international product manager responsible for a team of staff*". Having done some teaching over the previous 10 years in private organisations, TAFE and HE, Richard developed a "*keen desire to make a career change, driven by the wish to teach others what I had learnt in industry myself*". Richard has two Masters and a PhD with a teaching career spanning more than 30 years. His current responsibilities include departmental staff coordination, staff mentoring, and supervision of part-time tutors, as well as being involved in a number of university-wide governance committees.

VET managers' work trajectories

Jessie, as head of department, manages a number of broadly dispersed regional campuses. She teaches up to ten hours per week, in addition to having "*management responsibilities for other teachers*". She has worked in the public VET (TAFE) sector for approximately thirty. Jessie holds an undergraduate degree and a number of other TAFE qualifications. Prior to TAFE, she worked as an insurance clerk industry for approximately twelve years, and also managed a small insurance office. Like many

women, Jessie's career in education was interrupted for a period, by childrearing and other family responsibilities. Outside work, she assists her husband's small business with the human resource, and marketing functions, including payroll, tax preparation, and "*all of the employment law work with the staff ... ensuring we meet all our obligations*".

Margaret works as a research assistant and training product development manager for a commercial and non-profit national organisation, offering consulting, auditing and training services. Her role is twofold: heading a team that develops the organisation's training products, and managing "*the development of [training] facilitators*". Nineteen years ago, following the completion of an applied science degree, Margaret began working going from "*the environmental industry into recruitment, so I was teaching within the recruitment industry for a while, and then I moved in the current role, with formal qualifications in Safety*". Margaret has continued her studies, completing a number of TAFE course and a Masters in Education, and is currently pursuing a PhD "*with a focus on adult education*", while still engaged in full-time employment.

Marta's experience is that of a typical career beginning at an entry level position in hospitality, advancing to a supervisory level, and subsequently, to a department manager role in the retail sector, culminating in small business ownership. Her middle management roles demonstrate the breadth of her occupational knowledge and skills she brings to her professional management role within VET.

Michaela moved from working in the health sector to education about ten years ago. She has been a TAFE business studies department head in a dual sector institution for the past three years, with responsibilities for academic and executive staff "*in a traditional on-campus methodology and also in a multi-modal delivery and industry targeted*

training”. He industry experience in a number of leadership roles spans over 25 years. Michaela has a Masters in Education and has a number of TAFE qualifications.

Nathan completed an engineering degree abroad and worked in this field for a short time prior to migrating to Australia. Shortly after his arrival and following some further assessment of career options in Australia, he embarked upon post graduate studies in information technology. Immediately upon graduating, Nathan successfully pursued a managerial role within the VET sector and has since worked for a private RTO for the past fifteen years, with responsibility for teaching staff, VET training package course development, and compliance matters.

Rudy is a senior management in a large public VET institution overseeing academic development and progress of Certificate, Diploma, and Advanced Diploma courses. Previous to this, he spent approximately ten years in the HE sector, with faculty wide program coordination responsibilities. Prior to joining academia, Rudy worked in the field of health and safety in manufacturing. Rudy has completed post graduate studies in health sciences.

Stefanie is a TAFE business studies program coordinator and holds a PhD. She is responsible for a team of full-time and sessional teaching staff, together with the administration of business training packages, course coordination, program evaluation and compliance matters. Prior to working in TAFE, Stefanie was employed within the HE sector, lecturing in human resource management. This was preceded by 10 years of industry experience, working mainly in large organisations, predominantly in “*HRM coordinator roles, and then ... into management roles*”.

Industry managers' work trajectories

Bill has staff and departmental managerial responsibilities for finance, administration, and strategic planning, and his career trajectory spans over 30 years, with experience in the travel, trade, and retail management sectors. He holds undergraduate qualifications in science and business administration, a VET advanced diploma, and has completed a number of professional development programs offered by his employer.

Colin joined the army as a 15-year-old electronic apprentice. After 14 years in the armed services, he spent 13 years in an electronics research and development role, and then a year as a product manager in the same sector, before becoming a business advisor for the past 13 years. He has a Masters in International Business, and a number of other TAFE qualifications.

Fred is a senior manager for an insurance brokerage firm with “*over 30 years*” experience in this sector. Prior to this, he worked in a range of industries, “*all credit or collections related*”. Fred does not hold any formal qualifications, but commenced an undergraduate degree in business administration, and due to successive takeovers of his company, he had to devote his energies to managing his staff and he never resumed his undergraduate studies. Fred has however continued to develop his professional knowledge through a number of non-award courses in various fields relevant to his industry sector.

Garrett's industry experience spans 28 years, mostly in the transport sector, as a health and safety compliance manager. The diversity of his working trajectory “*pretty much hasn't stopped*”, as evidenced by the establishment of a small logistics business operation, and subsequent transition as the current owner/operator of a small training and consultancy business, coupled with sessional work as an RTO trainer – a role having

eventuated from the circumstance of shifting business conditions, and subsequent new work opportunities flowing from his existing professional network.

Luke has worked in finance for approximately 35 years. After several years of working in accounting firms he started up his own practice as a chartered accountant, prior to immigrating to Australia. As his foreign qualification was not recognised in Australia, Luke *“went back to university and ... did a Bachelor of CPA”* while employed full-time for a national company, with diversified business interests. As his position was made redundant as a result of a takeover, he moved to a large international corporation, and over the following 20 years, developed his career to a senior management role.

Nigel began working in retail sales *“straight out of university”* 25 years ago. He transitioned to a new position as an accounts clerk, and this influenced him to complete an Associate Diploma in Accounting. Over the *“past ten years or so”* Nigel has *“worked in various organisations, mostly in a sales/sales management role whilst simultaneously competing an undergraduate degree in international trade”*. This led to full-time work as a buyer for an international airline over a *“five or six year period”*. During this time, Nigel was offered sessional teaching in the evening, which he still continues, while his career has progressed in the transport and logistics sector, having had extensive experience in higher middle-management roles in areas such as procurement and contract management.

Pamela's working trajectory began at the age of 16 years, after she *“left school in Year 10 ... on the Friday and ... had a job to go to on the Monday, which was in a real estate office doing bookkeeping”*. She has owned and managed a small company for the past 10 years that provides office management and accounting services, mainly focusing on the logistics sector. Prior to this, Pamela's 30+ years of industry experience extends to management roles in the logistics and real estate sectors, with responsibilities ranging

from “*administration ... to accounts ... to HR*”. She holds an associate degree in accounting.

Patrick owns and manages a small company. He began his career as an engineer before moving into the IT sector, selling industry specific software and “*implementing solutions to major national and international corporations for more than 25 years*”. Over this time, he has gained a Diploma in International Trade, and a Diploma in Sales and Marketing. He is also a part-time tutor in various business disciplines, focusing on the practical application of business “*industry knowledge and industry skills*” that students will need to “*help them get job roles*”.

Trudy has managed a team of staff in the finance department of a large international logistics company for the past nine years. Prior to this, she worked in the banking sector while concurrently contracted as a post graduate sessional tutor in the field of finance and trade. She holds undergraduate and post graduate qualifications International Trade and Commerce.

Valerie’s career spans over 30 years. She has worked for large multi-national consulting organisations in the field of HRM, where she was responsible for managing “*HR, payroll and learning and development*”. She has managerial responsibilities in a facilities management organisation providing services for the retail sector. Valerie has undergraduate degree in Business and a Graduate Diploma in Career Counselling.

A commonality shared by each participant is the diversity of their occupational/professional transitions over time. Significantly, these personal histories of work in multiple fields of practice play an important role, not only in the development of their professional identities (Billett, 2001), but also in terms of influencing their views and attitudes towards TPI activities. Collectively, the breadth of experience of all

participants places them in an ideal position to consider the likelihood of TPI opportunities and its potential for capacity building within their organisations and communities.

Theme 2: Managers' Knowledge of TPI Schemes

This theme considers what managers already knew about TPI schemes and whether they had any prior involvement in such initiatives. Whilst the literature has long advocated for academia-industry partnerships to build knowledge and skills capacities (Industry Skills Councils, 2012; Organisation for Economic Co-operation and Development, 2009; Scott-Kemmis, 2017; Skills Australia, 2010), there were varying levels of awareness about TPI as one form of industry engagement for educators, as identified in Table 5.4. When asked about their knowledge of TPI schemes, some participants only spoke generally about the value of education-industry alliances, without directly addressing the question. Others appeared to be more familiar with the concepts of student internships, or work integrated learning (WIL) rather than TPI.

Table 5.4: Managers’ knowledge of TPI schemes summary

HE Managers	Some Knowledge of TPI	No knowledge of TPI	No direct response given
Bill		X	
Cheryl			X
Jack	X		
Leo			X
Matthew			X
Mick	X		
Richard	X		
VET Managers			
VET Managers	Some Knowledge of TPI	No knowledge of TPI	No direct response given
Jessie		X	
Margaret		X	
Marta		X	
Michaela	X		
Nathan		X	
Rudy	X		
Stefanie	X		
Industry Managers			
Industry Managers	Some Knowledge of TPI	No knowledge of TPI	No direct response given
Colin	X		
Fred		X	
Garrett	X		
Luke		X	
Nigel	X		
Pamela	X		
Patrick		X	
Trudy		X	
Valerie		X	

HE Managers

Jack noted “*one of the things that has always annoyed me ... about universities, is the lack of industry expertise of a number of staff ... particularly in the area of business*”.

Richard highlighted “*institutional barriers*” as making it “*not that easy to do*”. Jack was aware of TPI initiatives through some state-based schemes such as the one offered by the Queensland government (Department of Education, 2019). Mick noted that it was not

until he was contacted to participate in this study that he had actually considered TPI as a form of CPD for educators, stating it would be “*nice ... to see what’s going on [in industry]*”. Whilst recognising TPI as being “*something that happens within areas like information systems and accounting ... from time to time*”, Mick also acknowledged it as something that is “*not common [but] it should be [in other areas also]*”. Richard noted the relevance of TPI in a constantly changing environment, commenting that “*there is nothing that I would like more than to actually go back into industry ... and reconnect ... if you like, because things do change very, very quickly*”. Richard’s view is consistent with discourses related to the increasing international interest in building human capital to support industry’s demands in constantly changing environments (Organisation for Economic Co-operation and Development, 2015; Prusak, 1998; Virkkunen et al., 2010).

VET Managers

Of the seven VET managers interviewed, four had no prior knowledge of the concept of TPI. Michaela’s current Victorian employer has a policy on “*needing to maintain vocational currency*”, however she explained that the “*formal Return to Industry program*” that her organisation previously had was abandoned due to “*massive state government changes to the funding model in 2012-2013*”. Clearly, this draws attention to a dichotomy between policy discourses that promote the need for educators to build their industry/vocational currency when at the same time, government funding cuts work against institutional capacities to support such initiatives. While noting no knowledge of TPI schemes, Nathan explained that his organisation has no such policy to support “*sending the teachers to the industry, but it is a requirement [that] we have trainers who we need to make them industry currency (sic)*”. Under such circumstances, it seems that there is no organisational support for TPI, rather, it is left up to the individual teachers to

maintain their industry currency by whichever means they may achieve it. This highlights one problematic for those with limited or no industry contacts to call upon, for without institutional support to broker a TPI arrangement, such CPD opportunities are likely to be met with resistance from industry managers. Furthermore, Nathan's response appears to indicate that there is little workforce planning and development, which is one of the intertwined aims of TPI schemes. The individual pursuit of industry currency, which is not achieved via institutional involvement, also brings into question whether communities of practice (CoP) can be developed. Consequently, where an individual pursues a placement privately, there is perhaps more limited scope for a CoP or shared partnership to be created to support mutually beneficial educational institution, and industry interests and agendas such as capacity building (Billett, Clemans, et al., 2005; Wenger, 1998b) - another key tenet of TPI schemes. Stefanie had "*briefly read a policy or heard about the opportunity*" for VET teachers to return to industry, and explained there was a policy in TAFE NSW that supported it for a period of up to 12 months. She noted that within her specific area "*people generally know about it but that's about all*". This appears to suggest a lack of communication and promotion of TPI opportunities, leading to a general lack of staff awareness for such initiatives. The apparent lack of information dissemination about TPI policy may cause one to question management's commitment about the realisation of TPI opportunities, and whether this is a somewhat deliberate intention, given the often-cited drawbacks related to funding. In other words, the institution can 'tick' the fact that they have a policy, but there is no apparent implementation of it. As such, it stands as a passive rather than an active policy. This problematic stands in juxtaposition to the dialogical nature of workplace learning by engaging in various activity systems, through which communication is seen as an essential mediating function that influences

organisational change and development (Bakhtin, 1981; Engeström, 1987; Koschmann, 1999; Wegerif & Major, 2019; Wenger, 1998b).

Industry Managers

Of the ten participants interviewed five had some understanding of the concept of TPI, and five stated they had no knowledge of it. Nigel explained he had “*seen some teachers on industry placement come in for short stings within organisations ... they basically have an overseeing role seeing what happens in that Learning and Development area in organisations*”. These comments demonstrate participants’ limited knowledge of TPI schemes, suggesting that greater effort is required to develop and nurture academic-industry relationships to bring host organisations on board, in order for TPI opportunities to be materialised. The importance of nurturing such relationships for the purposes of knowledge sharing and capacity building has been long been acknowledged within the literature (Australian Industry Group and Engineering Employers Association of South Australia, 2003; Guthrie, 2010; Guthrie & Dawe, 2004; Organisation for Economic Co-operation and Development, 2014; Scott-Kemmis, 2017; Service Skills Australia, 2010). However, it seems that to date, the approach has been disjointed, with a degree of ‘silo’ mentality that is hindering the realisation of TPI prospects. This accords with Cedano et al. (2010), who, whilst emphasising the need for improved communication and collaboration between academia and industry to build knowledge and skills capacities, claims there is “little effort” (p. 1) in this regard. I argue that a well-coordinated effort by government, industry, and educational stakeholders is required, to optimize mutually beneficial workforce development through TPI opportunities. Consistent with one of the key principles of knowledge management, TPI initiatives requires effortful strategic

planning that moves from “policy implementation to monitoring and evaluation” (Demarest, 1997, p. 322).

Theme 3: Knowledge/Skills Required by HE and VET Educators

This theme addresses subsidiary research question number 2: What kind of learning may be needed, by whom and for whom? To recall, a critical issue facing all organisations in contemporary times is the rapidly changing nature of work environments, and industry’s requirements for ‘work-ready’ graduates (Goulter & Patrick, 2010). Consequently, concerns over teacher industry currency have gained increasing prominence in the discourses related to CPD, particularly within the VET sector (Clayton & Guthrie, 2013; Clayton et al., 2011; Clayton et al., 2013; Tyler & Dymock, 2019). With this in mind, Theme 3 explored what kinds of knowledge and skills academics should have to make students ready for the world of work, and give industry greater confidence in educational programs.

A number of managers spoke of the tensions arising from mass education, the shrinking of full-time staff, and the diminishing pool of funds, all of which have negatively impacted HE and VET’s ability to adequately meet the needs and increasing expectations of students and employers. Cheryl (HE) agreed with employer concerns that many graduates are not sufficiently ‘work-ready’, and attributed this to mass education, which she spoke of disparagingly

Universities in Australia have got drunk on the international student fee revenue. We’ve built these huge empires and edifices that rely on those funds continuing to come in, so it’s very difficult for universities to manage that system, that large, student numbers, mass education system and satisfy the needs and wants of local employers ... What we’re trying to do is be clever and design our curriculum in a way that will give the students both the hard skills and the soft skills they need to be work ready ... that’s not easy at all. You know, when you’ve got 600 students in a class, it’s very hard to give them the class time and the time to develop communication skills, etc., so there’s that tension.

Leo (HE) also saw the commodification of education as a considerable “*problem at the moment*” that manifested in various ways, with consequential negative impact upon the quality of teaching. He bemoaned the “*singular focus of universities on overseas student numbers, and how many people they can get on seats and run with their classes*”. He also pointed to the inadequacy of the “*traditional focus upon qualifications and publications as a prerequisite for teaching in HE*”, stating

I find it quite incredible that in what is increasingly a practical need in universities ... our advertisements to employ staff still look at the traditional academic ivory tower rubbish instead of what these people can bring to the university in terms of a real understanding of what is really going on in a very rapidly changing world.

Leo argued that universities were “*only after people who can sit and read lectures from the front ... [because] ... they’re much cheaper ... but the cheapest is usually the most inexperienced*”. He was particularly critical of his own academic staff with their “*appalling*” lack of workplace experience, and considered it crucial that academics have “*practical industry experience*”.

Significantly, industry currency was a recurring issue raised by participants, as a vital requirement for teaching in HE and VET today, and this was supported by the findings in Table 4.9. There was strong agreement that educators should possess current knowledge of industry practices relevant to their area(s) of specialisation, as supported by the survey findings in Tables 4.6, 4.9 and 4.20, yet a perspective shared by most of the participants, was that the level of industry currency held by many of their staff was considerably inadequate. I argue that TPI activities, by their very nature, would assist in bridging this gap.

Leo (HE) drew attention to the magnitude of the gap in teacher industry currency, and saw this as a weakness of traditional academic staff recruitment methods, as

We have [academics] who are lecturing ... students ... in Business Management [who] have never managed a business. We have people who are ... trying to ... conduct Masters level courses in Business/Marketing, who have never been in marketing, and everything they are doing is based on what they have read, not on what they have experienced and certainly not on what they've been able to understand in context. So ... I find it quite incredible that in what is increasingly a practical need in universities ... our advertisements to employ staff still look at the traditional academic ivory tower rubbish, instead of what these people can bring to the university in terms of a real understanding of what is really going on in a very rapidly changing world.

According to Matthew (HE), apart from theoretical disciplinary knowledge, educators require an “*enthusiasm and passion*” for teaching, in addition to “*an awareness of what’s going on out there*” in the ‘real’ world, at “*the political, regulatory, and industry level, and ... where that’s likely to head*”. He spoke of his frustration with some academics, stating

it never ceases to amaze me when you run into academics, and you’re talking about what’s going on, and they go “what the hell are you talking about”? And you think, “well Jesus, that government report which is going to change the face of this industry potentially, was released about six months ago and you don’t even know that it’s there!

Leo (HE), emphatically highlighted “*context*” as the “*major, major thing [academics] ... need to understand*”. According to him, context is to know “*not just what’s going on, but [to also] know how to react to changes in terms of what’s coming in, in the context of business*”. He argued that this cannot be achieved with simply a “*knowledge of context that one reads in textbook*”, for “*you need to have been there and to have that understanding yourself at eye level, and far too many of our business faculty staff do not have that*”.

Nigel (industry) considered it “crucial” for teachers to understand different organisational contexts, explaining

It would be difficult for someone that’s been in a teaching role ... [who] ... hasn’t had any exposure to industry ... to prepare their students for the type of encounter they would experience when going into the workforce”.

Margaret (VET), also stressed the importance of content and context, as

educators need to have a balance between the chain of practicalities of the industry, so the content that they’re delivering, they need to understand the workplace environment of that content, but they also need to know how to teach ... it’s hard to find good educators that have both [skill sets] ... there needs to be a balance.

Practical experience provides an insight into the particular culture of an industry sector. These business environment cultures are quite different depending on the sector involved. For example, the way the financial industry reacts to environmental factors is quite different to that of the hospitality or retail sectors. Communication styles, attitudes, and values all form part of a particular industry cluster, and understanding the ways in which a sector operates, enables the teacher to provide more professional context to student learning. The comments from participants correlate with various discourses that distinguish between different types of knowledge, such as: theoretical/codified knowledge; and new kinds of knowledge acquired through participation in non-academic contexts, such as industry settings (Billett, 2004b, 2004c; Eraut, 2004; Gibbons, 2013). Their views elaborate on the survey findings in Tables 4.6 and 4.20, and also bring a critical eye to the standard ‘acquisition-based’ paradigm of learning, that has long been employed by academics through the transmission of codified knowledge drawn from textbooks. Certainly, the changing nature of work contexts underscores the critical need for HE and VET to play an active role in supporting educators in building their knowledge and skill capacities in goal directed activities across workplace boundaries. I argue that

regular, longer-term participation in the workplace is more likely to lead to the teacher being an accepted member of the team, able to develop professional relationships at a deeper level, and gain a better understanding of the workplace culture, the issues facing it, the way things work, and keep abreast of industry changes as they arise. In turn, these can be used for continuous curriculum enhancement. TPI initiatives provide an ideal means of achieving this.

The comments from these participants highlight the all too theoretical nature of the HE environment and call for academics to have more practical industry knowledge and skills pertaining to the discipline areas in which they teach, in order to produce more employer-ready graduates. It would seem logical that the implementation of TPI schemes in HE would help fill the “theory-practice” gap identified above, by giving academics access to forms of participation in industry settings, that should build new knowledge and information to enrich their teaching practices. This is supported by various social constructs of learning and development that are grounded in theories of activity, boundary crossing, expansive learning, workplace affordances, and participation in communities of practice (Billett, 2001, 2004b; Engeström, 1987, 2011; Engeström & Kerosuo, 2007; Engeström & Sannino, 2010; Eraut, 2009; Unwin et al., 2007; Wenger, 1998b) .

Whilst highlighting the importance of technical/theoretical underpinning knowledge, Mick (HE) explained that employers assume for example, that “*accounting graduates can complete a profit and loss sheet ... a balance sheet ... [and] that you can do a cash flow analysis ... [irrespective of where their] ... degree comes from*”. He spoke of his frequent discussions with employers over time, noting how this had helped him to tease out some of the issues that concern them, including

finding graduates who apply for ... jobs who dress appropriately, who speak appropriately, who can work in a team, who realise they're not

going to start off on day 1 being the CEO, who can take criticism when its ... personally supportive but critically about your work, you know, who we can let talk to a client, who can actually talk to other people who they work with, who you know, can give a presentation to a group of people, you know, to an audience. It's those. ... softer skills ... they just find so difficult to find amongst modern or contemporary university graduates.

These comments draw attention to employer concerns over graduate readiness for employment.

In distinguishing between “*world smart*” teaching focused academics and “*book smart*” research focused academics, Mick viewed ‘teaching focused’ academics to be “*better at knowing what prospective employers are looking for*”, particularly in the area of soft skills, when compared with research academics, whom he claimed to be “*much more siloed into their really finite research area*”. In an indirect way, he pointed to the obsolescence of some academics in his institution because they have worked there for far longer than he, and “*as we all know in universities [they] can become part of the furniture, and unfortunately they may be bits of furniture that are very hard to move, um, and they ... this is going to sound horrible, they may care less than others*”. This comment underscores the agentic and “partially person-dependent” Billett (2014c, p. 208) nature of engagement in workplace practices due to the individual dispositions of employees (Hodkinson & Hodkinson, 2004). Furthermore, it reaffirms Rishipal’s (2013) claim that despite the knowledge and experience of long-standing employees, many “become less enthusiastic as their careers draw to a close” (p. 82).

Indeed, professional obsolescence has a significant impact on an individual’s work performance, where their knowledge and skills fail to keep pace with contemporary changes in technology, procedures, and work systems. As the industry currency requirements of individual teachers “often mean a much more complex combination of

activities appropriate to the contexts in which they are delivering” (Clayton, 2012, p. 29), TPI initiatives provide a means by which the teacher may avoid the ‘obsolescence trap’ as they would be involved in contemporary processes that would keep them up-to-date.

Richard (HE) stressed the often-missing link between theory and practice, pointing out that irrespective of an academic’s area of specialisation, “*we need to be mindful that ... it’s not a static landscape ... what we need to do as educators is give the students something that provides the link between the classical textbook theory and the practice that is played out in industry*”. For Richard, it was important that academics understand “*the relevance of the theory to actual work practices*”, and argued that academics require

greater involvement with industry ... I think probably where we have a gap is that sometimes we are a bit too theoretical rather than looking at applied theory ... theory that has got an application ... to industry, to the workplace – that is very powerful.

Jessie (VET), identified a strong need for educators to have “*current technology skills ... and ... to understand current business practices*”. She noted clear tensions between the many teachers who have been “*working in institutions for a long time ... [and] ... have missed that whole change of technology that’s happened in the last few years*”. In particular, she noted the application of “*social media ... [in] ... marketing business ... and even just the way we communicate now with mobile devices, some of them, you know, they wouldn’t have knowledge about that*”. Likewise, Stefanie (VET) identified industry currency as an issue for VET teachers. She agreed that there were “*gaps in their existing knowledge*”, and attributed this to the VET environment itself, as

Teachers ... are placed in areas where training packages are updated and they’re updated because there’s been new industry needs or ... because things have developed within industry over time, and the [teaching] staff who were in industry previously might not have had that opportunity to ... do that in industry, but then they go and do a

theoretical course, but their currency, because they haven't had to apply it, is questionable.

Underlying Stefanie's remarks are one of the key challenges for VET (and HE), in terms of being responsive to industry's needs in the face of rapidly changing work conditions (Bretherton, 2011).

Jack (HE) pointed to mind-set of many academics "*who have been in their silos and not really engaged with their community*" despite expectations by "*government and other agencies for the university to be more community engaged*". As with other educational institutions, Jack explained that his institution "*had moved heavily into casuals*" drawn from industry, yet cautiously questioned whether sessional teachers add value to the classroom through their industry experience

I hope the answer is yes, but I'm not quite sure yet... we are not getting them to do 'real world' as academics, very well ... From the number of staff I look after myself, they come in and use the standard textbook questions and answers, may add a bit of flavour to it, but ... [is that enough]?

Jack's reflection on what value his sessional staff offer appears consistent with the view that workforce casualisation does not necessarily equate to high quality teaching (Bretherton, 2011), and herein lies a conundrum between practical industry knowledge and teaching skills. I argue that unless an individual has both, one part of the equation will always be missing. A teacher without practical industry knowledge lacks the requisite information to make the classroom more relevant to today's workforce readiness. A practitioner who does not know how to teach, lacks the ability to transfer the knowledge to students. This underscores the importance of TPI, as such schemes provide teachers who know how to impart information with additional contemporary (industry relevant)

knowledge for the longer-term benefits of their students through curriculum enhancement.

Marta observed that “*there’s a generation of older students and younger trainers*”. Older students potentially have industry knowledge and if younger teachers don’t have that, then they are ‘behind the eight ball’ in creating a learning environment that is useful to those older students by providing them with new knowledge, rather than teaching them what they potentially already know. Therein lies the importance of teachers having relevant contemporary, practical knowledge, and this leads us back to the underpinning importance of TPI.

Technical competency in the application of business systems was another skills-set considered important by Marta:

If you’re teaching marketing, you should have an experience in marketing in the different sections of marketing, or if you’re teaching business administration ... I mean ... being proficient in the use of current applications of software, and being able to produce documentation ... it’s really very important.

Michaela noted the importance having an understanding of “*common employability skills*”, and a “*genuine awareness of where their skills connect in that [industry setting] space as well, so they can draw on experts other than themselves to provide information that students need*”. In the context of TPI activities, there is real potential for teachers to be able to draw on industry practitioners as guest speakers (Tyler & Dymock, 2019; Tyler et al, 2016), and have them ‘connect’ with the students, and act as role models for their industry.

Industry participants also identified a range of personal qualities, skills, and knowledge which they believed essential for teachers, to support industry’s demands for

‘work-ready’ graduates. Colin spoke of the need for educators to be able to marry “*the theory to the practical*”, which to him, meant

getting someone ready to go into the workplace ... [with] ... the ability to ... be not completely functional, but functional when they start work ... to perform basic tasks ... with minimum supervision ... and ... meet a range of different outcomes [associated with those tasks] ... so someone with soft skills would be able to adapt to the workplaces they’re in.

The emphasis upon developing students’ interpersonal skills (such as communication, problem-solving, and team-building) was a common thread amongst all managers interviewed. Yet, the difficulties of developing students’ ‘soft skills’ are hampered with large class sizes; staff reductions; increased workloads and funding constraints. Pamela noted the importance of teacher “*interaction*” and engagement with students, yet acknowledged

teachers probably don’t have an opportunity to spend 5 minutes talking to the class over a period of time just to get to know each person and bits about what they’re expecting and what they claim to do with this new found knowledge I don’t know that teachers have that time, because they have time-frames and everybody’s just push, push, push to get that end result but not necessarily saying what’s the product like when it comes out the other side?

Like all workplaces, educational institutions are comprised with a multitude of stakeholders with often conflicting needs. Pamela’s comments highlight competing elements within the system, as seen through the constraint of contemporary educational environments, that limit what educators are able to achieve. This illustrates one of the many contradictions embedded in all activity systems (Cole & Engeström, 1993; Engeström, 1987; Trust, 2017).

Fred expressed frustration with some of the people he manages, whom he claims “*can’t string two words together in a report*”. He proposed

having a group of ... individuals who can come together and agree on a common learning and then um, be able to throw the floor out to what technical or specific learning [is required] ... I think is the way to go ... because quite frankly, I think that what’s coming out of school is a lot of ego, um, and not enough ... practical understanding.

A similar view was shared by Valerie, who noted that “*a lot of younger students do tend to come in with an unrealistic view of what business is about. It’s like an extension of school for them*”. These perspectives are consistent with broader industry concerns about graduate ‘work-readiness’, as previously noted.

Collectively, these responses run parallel to the discourses regarding the changing nature of work, and concerns over the HE and VET sector’s capacities to support employers’ needs and expectations (Australian Industry Group and Engineering Employers Association of South Australia, 2003; Clayton et al., 2011; Guthrie & Dawe, 2004; Salmi, 2017) in “a world where globalisation is creating new and shifting markets, changing demands for skills, and different forms of work” (Organisation for Economic Co-operation and Development, 2015, p. 185). Educators need a balanced mix of theoretical and technical knowledge, combined with current industry knowledge that is drawn from practical industry experience relevant to their fields of specialisation. Furthermore, they require an ability engage students in ways that will equip them with the ‘soft’ skills that industry demands. The responses make it clear that greater effort is needed to provide educators with opportunities to work in industry to enable them to build their understanding of the knowledge and skills required by firms, and to build a greater awareness of the challenges organisations face across different industry sectors. However,

this will require a concerted effort to reform existing approaches to teacher workforce development, in order to strengthen the quality and relevance of teaching practices to meet the needs of multiple stakeholders, and recommendations to achieve these are outlined later in this thesis.

Theme 4: The Perceived Benefits of TPI Initiatives

This theme addresses subsidiary research question 1: Do managers see any value in TPI initiatives? I acknowledge the somewhat vague and subjective nature of ‘perceived value’ and view it as a “multi-dimensional construct in which a variety of notions such as ... quality ... [and] ... benefits are ... embedded” (Sánchez-Fernández & Iniesta-Bonillo, 2007, p. 428). In most cases, participants conveyed similar views about the value of TPI, and many of these are consistent with literature previously cited.

Whilst acknowledging there were challenges to supporting TPI activity, Bill (Industry) thought such initiatives had “*incredible value ... for business educators ... [by] ... bringing in current practices and technology procedures into the classroom*”

Cheryl (HE) stated her staff would

actually benefit from having some industry experience and looking at the problems that industry faces, rather than asking esoteric academic questions, the answers to which will have no impact on anyone ... but maybe get published in a good journal.

At the same time, she believed her staff “*would not actually see much benefit to be taken away from doing the bread and butter stuff that gets them to keep their job, which is research publication*”. Indeed, the ‘publish or perish’ mantra that has permeated academic career development focuses on the theoretical aspect of academic activities with little, if any, practical applications. Career progression is significantly influenced by publication outputs, a source of university government funding and prestige in university rankings, and as Cheryl noted, “*finance academics are less ‘real world’ ... most are*

focused on their little research areas and they're not that keen on getting out there in the real world". I argue this situation highlights a tension between the rhetoric of wanting to be practical, and the reality of career development still being tied to theoretical output. In support of my argument, I point to the relatively low percentage of 'teaching only' academics who have been appointed in Australian universities (Probert, 2013; Whelan, 2017). Cheryl considered the "*mutually beneficial advantages having academics with particularly ... well-honed technical skills solving problems industry might have*". In the area of financial services, this would mean a

better appreciation of how the regulatory process works, so you can talk about it again, in theory, but to see it in action might give you better insights into the constraints and the challenges facing regulators ... You learn how the theory is applied ... I think what an academic would most gain ... would be that practical experience to recount back to the students, give the examples ... and to see what actually happens in their particular area.

Cheryl claimed that academics' "*different thought process and approaches to solving problems*" also meant that organisations could "*get a lot from it*". This points to the reciprocal and interdependent nature of workplace learning (Billett, 2001, 2004c, 2014a) that could be made possible through TPI initiatives, resulting in real value and benefits for both the teacher (updated industry knowledge and skills for individual development and curriculum enhancement), and the host organisation (a different lens to develop improvements to its current systems and processes).

Jack (HE) claimed educators would gain insights that would "*prepare students for the real world*". Drawing attention to the rapid pace of change in work environments, he noted that when students graduate

it will not be the same world as when we taught them in the first few years, and that's a scary thing for me, including I (sic), in getting out in the real world. I think that's why many [academics] don't wish to,

because they'll find it hard ... they'd be embarrassed that they're really incompetent, so it's a very scary world.

Jack's comments reveal uncertainties academics may have about their own competence, and this is a natural part of human experience when one is faced with the challenges of going beyond their comfort zone. I argue here that this is the risk one takes when boundary crossing yet, importantly, one of the reward/s in crossing workplace boundaries is to reflect upon one's own competence and learn new things that may build and transform individual capacities, and this is consistent with Akkerman and Bakker (2011). Jack highlighted other benefits including "*better relationships between entities; ... better understanding of potential graduates; ... [and] ... having a view to potential graduates for employment*".

Leo (HE) saw TPI as being "*really critical ... [for] ... without it, business schools actually lack relevance ... If you don't know what's actually happening, you can't really ... in an academic way, provide a conceptually sound program which will not just enhance ... the capacity of individuals in workplaces, but the whole commercial basis of the country*". Nathan (VET) and Mick (HE), expanding on the findings in Table 4.7 and 4.19, viewed TPI as a source for transferring 'new' knowledge and research opportunities between the host organisation and teacher. According to Mick (HE) the "*team working opportunities*" that may flow from TPI include the development of networks to support

commercial ventures; business research; [and] ... curriculum development ... because change is constant ... new things happen all the time ... there are multiple environments that we have to be aware of and having industry links would support that.

Matthew (HE) noted the relationship building opportunities between the host organisation and university in terms of "*the expertise that we bring to the table ... which*

could help them improve their business, from a *quid pro quo*” basis. Yet, a contrasting view about academic-industry engagement was put forward by Leo (HE), who stated:

When you dig deep ... and ... look at what universities actually do to promote the nature of those links [with industry], you do not get below that commercial level in most cases. You do not find strong infrastructure and processes in place which are actually designed to match the areas that [lecturers] need to develop understandings and skills in. Ah, what you find is programs which are designed to set up the best, ah, friendship relationships with industry rather than the best working relationships with industry.

According to Leo:

the real driving force behind the verbiage is not to improve the quality of the programs ... it's about setting up networks that are likely to attract more money to the university ... which will encourage business investment ... that will encourage businesses to send employees to the university to study, which of course brings income.

These comments expose the tension that lays behind academic-industry relationships and underscores the challenge of implementing TPI schemes in HE. Friendship relationships *per se* do not seem ‘fit for purpose’ in terms of staff development and capacity building - key tenets of TPI activities. I argue that staff development educational reforms are required to ameliorate the current state of play, and these form part of my recommendations in Chapter 6.

Richard (HE) spoke of the “*touch of reality*” TPI may give academics, and “*greater degree of confidence through their [industry] experiences that they can take back to the classroom*”. He viewed TPI as a source of “*knowledge which can actually challenge ... theoretical background ... [providing] fertile ground for research*”. He considered the expanding opportunities that may emerge through “*an exchange, a conversation, informally ... about what it is that they do, what they teach, what they don't teach, what is covered in the course, what isn't*”. This type of engagement could open up a range of

mutually beneficial opportunities over time, such as employee training and professional development; guest speaker presentations; and so forth. I argue that this direct form of engagement with industry practitioners is central to developing more knowledge that can help to prepare students for occupational practice.

Jessie (VET) saw that educators could play a prominent role through TPI activity. She explained that

Sometimes in industry, you see that things are done in a particular way for no particular reason ... [other than] ... this is how it's always been done or maybe that's the quickest way, or um, you know, "so and so does it like this so we'll do it like this", whereas we ARE [emphasis given] the educational professionals and I think sometimes, we come in with a few ideas, um, different ideas, maybe, about the way things can be done.

Jessie strongly believed that TPI benefits all stakeholders through the possibilities it may afford for joint project development; the bridging of individual skills gaps; a means for developing teachers' knowledge of current industry practices; and, to validate "that what they are teaching is industry standard or above".

She explained:

I guess if you've been in industry recently ... you have those examples ... it's not as clean cut and dry, sometimes, as its presented in a classroom ... how you have to solve problems ... how you have to work things out for yourself – that can only make your teaching better.

Her statement highlights a distinction between workplace and classroom environments. To recall, workplaces allow "little time for the deliberative/analytical approach" (Eraut, 2004, p. 201) to learning and task performance when compared with the approaches used in classroom settings, which generally allow students more time to complete assigned tasks. Yet, in terms of knowledge transfer through TPI activity, a teacher's experience of working within the constraints of a host organisation's environment has useful application in a classroom setting. For example, the teacher could mimic the conditions of workplace

practices by reducing the time students are given to complete assigned work. An important learning outcome for students would be a more realistic experience of employer expectations, and this would build their readiness for employment.

Margaret (VET) saw the value of TPI in terms of her staff being involved in industry projects, and in being able to see “*what industry is like at the current moment ... to help bridge a gap ... to see how the knowledge side of it, the content ... of what they’re teaching is actually applied in a workplace situation*”. She claimed TPI would not only be “*beneficial individually ... [but also help] ... meet the audit criteria of keeping your industry knowledge up-to-date*”. In relation to maintaining industry currency (a mandated requirement), she stated: “*email alerts, or reading newsletters is not really a practical application of industry knowledge [yet] it seems to pass audit most of the time*”. This highlights the low-level audit compliance approach to meeting industry currency requirements under the AQF framework, for it is not difficult to see that reading an email or journal can hardly be equated to participation in industry workplace experiences. As a “*selling point*” to industry, Margaret also believed that TPI initiatives should be project-based, and carry “*some benefit to the host organisation*”. This supports earlier comments about creating a ‘win-win’ environment.

Michaela (VET) claimed TPI provided a way for teachers to

bridge a gap between theory and practice ... [and as a means of] ... verification ... of the way they are preparing their graduates ... [and] ... give them an opportunity to review their practice and ... think about how they could ... improve it.

Michaela considered the usefulness of TPI using a “*layered approach*”. The benefit to the host organisation was seen through their role in influencing “*the graduate outcomes of future employees*” by engaging with educators and sharing how particular workplace knowledge and skills are used. She also stated that “*we should perhaps be bolder in*

including them in our conversation” about what skills and knowledge new graduates require. Finally, she spoke of the value to the host organisation in having “*higher level relationships with an educational organisation who can assist them with recruitment; and longer or shorter-term industry projects*”, and the opportunity it afforded for “*posing a research question with them, or for them*” to help improve or find solutions to organisational systems and processes. Michaela acknowledged that the teacher may not be able to make meaningful contribution to the host organisation immediately, as they would first need to ‘find their place’ in the organisation – that is, develop relationships with others and have a full understanding of existing processes before making suggestions for change.

Fred (Industry) viewed TPI as a “*brave initiative for a business to take on*”, yet at the same time, noted its’ potential benefits insofar as gaining “*practical, technical experience that could then be transferred back*” [to students]. Patrick (Industry) saw TPI schemes as a way to “*re-educate ... constantly to keep up-to-date*”. In highlighting some of the complexities of his industry, he bemoaned the knowledge gaps of some of his staff, and how this impacted upon certain aspects of the business. In relation to the use of electronic systems and process, he emphasised the need “*to modernise and streamline efficiencies*” in his organisation to bring staff “*into the 21st century*”, and saw “*tremendous opportunities for teachers to contribute*” in this regard. Likewise, Trudy (Industry), suggested that teachers with specialist knowledge could help fill knowledge gaps “*because in the Finance Department, they’re all chartered accountants, so they don’t have the ... general knowledge about the industry and its processes*”.

Luke (Industry) emphasised how TPI can enable teachers to move beyond “*textbook teaching*”, and stated:

They need to go outside into the world to see how it operates ... The [theoretical foundation] does help ... but ... when you actually get into the industry ... there's lots of differences within sectors ... so it is important for teachers ... to get that experience.

He saw TPI in the context of a “win-win” - the teacher has an opportunity to build their knowledge of industry practices, while also contributing to the host organisation through “*staff PD programs ... on whatever training needs are required within the organisation ... In this way, I get a resource for free, and the teacher gets the industry knowledge ... and delivers that to students, and everybody's a winner*”.

Nigel (Industry) spoke of TPI as an opportunity to build the reputation of the academic institute. He emphasised too, that it would need to be mutually beneficial. To illustrate this, he referred to a current initiative in his department to “*set up a structure for a Kanban type of environment where we're looking at structuring the workflow*”. This was a project he believed an academic with the right skills-set could reasonably be part of through a TPI arrangement.

Bill (Industry) was sceptical about the idea that an educator could reasonably support an organisation's training and PD initiatives

unless there was a very strong relationship across various other parallel areas based on a mutual basis ... hard to get the doors to be opened in the first instance let alone expecting someone from an academic context to be able to contribute directly to the productivity and activity and output.

Bill's comment points to the dual nature of boundary encounters, for in as much as TPI may offer a legitimate form of participation in the activities of a host organisation, there is bound to be disturbance created by a new entrant (the teacher) into the workplace. However, as (Wenger, 2010) points out, these disturbances create opportunities for different learning possibilities. I argue that TPI arrangements should be viewed as longer-

term, allowing for, and indeed encouraging a regular cycle of *in situ* periods. Over time, the teacher can become less ‘peripheral’ whilst continuing to build their practical knowledge, and as they become more familiar with the organisational structure and processes, they reciprocate by sharing their knowledge with the host organisation – TPI initiatives are meant to be a ‘win-win’ situation, and not unidirectional.

Theme 5: Challenges of Implementing TPI

Despite the benefits of TPI, and strong arguments for strengthening education-industry linkages, considerable effort is needed in order to overcome the difficulties of implementing such initiatives, yet without management support, opportunities for knowledge transfer through TPI are unlikely to be realised. Theme 5 answers subsidiary research question 3: What are the challenges of implementing and supporting TPI activity?

Institutional Support

According to Leo (HE) one of the first things to overcome is the lack of “*genuine institutional support for academics to engage with industry. He noted that “the gap between the “rhetoric of academic-industry engagement, and practice, is probably not much wider than the Grand Canyon”, and partly attributed this to the research and theoretical focus of universities being “very stuck in [a] Mode 1... understanding of what knowledge is ... [and] ... the concept of ah, getting out [and] being very practical, is seen to be something they do in TAFE, but not universities”*”. Richard (HE) concurred, viewing TPI as something that “*might be more desirable, or perhaps easier to have ... [in VET] ... than in [HE] because traditionally, there’s been this sort of separation between theory and practice ... That may be more perceptual than in reality, however ... it still permeates*”. The comments above correlate with the findings in Tables 4.10 and 4.23.

Funding Issues

To recall, the problem of government funding of educational institutions was identified in Chapter 4 and the impact of substantial reforms to the HE and VET sectors was conveyed through participants' voices that amplify the findings at Tables 4.10 and 4.23. The comments by interviewees recognize that funding is a crucial consideration for TPI opportunities, particularly as there continues to be uncertainty around it. Burke (2002) acknowledges that "changes in the economy and the commitment to lifelong learning are both changing and increasing the need for resources for vocational training [and also universities]. On the other hand, governments are reluctant to increase their funding" (p. 10), as they continue to view education as a private good because of their neoliberal ideology. According to Simmons (2002), "government cannot afford to pay for all training" (p. 58). Simmons' claim appears to be cast through a neoliberal lens. I say this because I believe that governments can afford to appropriately fund CPD initiatives if they so choose, however, to do so, they would need to be convinced of their value. I believe that the people who are best placed to influence governments to increase funding is through the voices of managers in educational institutions and private enterprise, who, as demonstrated by the responses in Chapter 4, regard TPI activities as being of value. The current problems experienced by managers in relation to funding TPI activities are identified in this section.

Jack (HE) noted "*we lost about 50% of our staff in the last 12 months*". The magnitude of these reductions, therefore, has consequential ramifications for TPI schemes, as this presents two difficulties:

1. It is much more difficult to find replacement staff to back-fill for TPI absences;
and

2. It is also much more difficult to employ external teachers to back-fill for TPI absences due to budgetary constraints.

Jessie (VET) stated:

We don't have a lot of casual staff anymore because [of] significant changes in the VET area, so ... to suddenly be down a teacher for two full weeks ... is quite disastrous ... unless those industry placements weren't done in teaching periods, and then it would be possible. It might be that teachers wouldn't support that, and if it's done during the teaching periods then it becomes from a management perspective, very difficult.

Similar difficulties were conveyed by Richard (HE) “*finding replacement people to do the tasks while staff are away*”, and Mick (HE) “*losing an academic for a period of time ... actually has an impact on the whole group because someone's got to fill in or back-fill that, and if you do get, um, like a sessional staff member ... there's an amount of up-skilling that needs to happen*”. Clearly the need to upskill a replacement teacher will place more pressure on the existing workloads of other staff.

Leo (HE) considered “*money [to be] the biggest challenge ... [as] ... the university will be concerned about what it will cost without money coming back*”. Such a ‘bottom-line’ approach towards TPI underlines the performative nature of contemporary educational environments that are largely measured by revenue generating/cost-cutting activities as opposed to investment of resources that support workforce development. Indeed, the privileging of revenue over knowledge work, such as TPI, draws attention to the inherent contradictions of neo-liberal educational landscapes which place a higher value on income generation.

Marta (VET) viewed “*inconvenience ... [and] ...financial ramifications*” as being the two main challenges “*unless it happens in school holidays*”. Both Jessie and Marta appear to overlook the fact that teachers also have other administrative and class preparation

duties that occur during the non-teaching period, and suggests a shifting mind-set in relation to when TPI activities should occur, that is, when they do not impact upon teaching duties. Although this may be convenient from a management timetabling perspective, it disregards the ‘non-teaching workload’ impact on the teacher. In other words, teachers may pursue TPI, but only in their own time.

The lack of a genuine commitment to supporting staff development also pervades the HE sector, “*universities will say we’re very happy for you to go out and work in industry [but] don’t expect us to cut your load*” (Leo - HE). I argue that this is hardly conducive to longer term successful workforce development and curriculum enhancement. I also claim that under these conditions, HE and VET institutions hardly fit the mould of expansive work environments (Fuller & Unwin, 2004), and it is difficult to see how TPI schemes may successfully survive, especially as TPI activity requires prior well negotiated arrangements to ensure that the needs of stakeholders are not unduly impacted. This tension is not unusual in contemporary work environments where CPD is given low priority, and increasingly expected to be done in one’s own time. Such positioning reflects a more restrictive work environment giving little support for workforce development (Fuller & Unwin, 2004; Harris et al., 2001).

Funding accountability is an opaque aspect of TPI schemes. I make this claim based on my efforts to find details about public funding for TPI schemes across Australia. On 29 December 2020, I contacted each state education authority, by email, to obtain details of their schemes in relation to funding and the uptake of TPI initiatives. I asked the following questions:

1. Do you have Teacher Placement in Industry (or similarly named) schemes?
2. Do these apply only to publicly funded TAFE of both TAFE and RTOs?

3. What is the yearly budget allocation for these initiatives?
4. What is the criteria for such funding? E.g. partially funded and the basis for such funding.
5. What is the participation rate (in number of total teachers who were successfully funded)?
6. What is the duration of funded placements? A range would be acceptable.

Replies were only received by Victoria, Queensland and Western Australia and, despite telephone follow up, the other states did not provide any information.

Victoria advised (4 January 2021) that funding was variable, depending on the criteria of the program and that staff professional development forms part of the RTO subsidy, and this is used at the discretion of the recipient organisation. No further details were provided in respect of the participation rate or duration of placements. Western Australia advised (5 January 2021) there was no centralised funding and placements initiatives were left up to individual TAFE institutions. Queensland's response (7 January 2021) was that their schemes were not publicly funded.

I argue the responses above demonstrate the lack of transparency over public money distribution for TPI schemes. There is simply no way of knowing with certainty who gets what money and how they allocate it. In periods of continuing shrinking budgets, it is not difficult to imagine that unspecified funding allocations that end up in a central pool may be easily diverted for means other than the ones they were originally intended. In other words, TPI activities may be sacrificed for other management 'preferred' expenditure. This is a significant issue and I offer some recommendations for improving the status quo in Chapter 6.

Workload Pressures

A number of participants from across all cohorts stressed workload pressures as a significant issue, and this correlates with the survey findings in Tables 4.10 and 4.23. For Stefanie (VET)

Our workloads have increased substantially ... I cannot think of one staff member who doesn't feel overworked, feeling overburdened with what's ahead ... they feel so challenged, so mentally drained, and stretched, and so 'change' fatigue ... is a real issue.

Workload pressures are, of course, not just limited to educational institutions, as Luke (Industry) points out “*we always have ... a lot ... to do. If you have ... someone ... sitting with you and ... sort of like training staff, that's not going to be easy*”. Pamela (Industry) concurred and was concerned about her staff potentially having a teacher that would need to “*be carried around your neck*”, thus adding burden to her staff workload. This indicates the importance of planning TPI activities, so they are ‘fit for purpose’, rather than becoming a burden to the host organisation.

The Human Element

The human element adds another layer of complexity to individual experiences of learning situated within the shared activities of a community of practice (Wenger, 1998b). A teacher's legitimate peripheral participation within a host organisation, through boundary encounters such as TPI, carries not only the potential for expansive forms of learning, but also the risk of tension and conflict, for as Margaret (VET) explained:

I think that people don't like to be told that what they're doing is wrong, or they could be doing it a different way...If you have a 3rd party...come in...theoretically they should be at the forefront of new research...if I came in and said to you “oh that's not how we do it, we do it this way”, a few people would find that difficult to deal with for sure, and a lot of people are resistant to change...it's easier for them to do it the way that they've always done it ... yeah...it could cause internal conflicts perhaps, but that's another ... thing that could be worked out, I think.

Here, Margaret points to significant contextual factors that constitute one dimension of the joint enterprise of TPI, that must be collectively mediated through negotiations (mutual engagement) with staff, in order to create the conditions that will support the aims and objectives of TPI initiatives. Another potential barrier would be the reluctance of some academics to participate in such schemes, for as Richard (HE) noted, this would likely “*place them outside of their comfort zone ... ‘I’m doing what I need to do, I teach, I’ve got a textbook, I do that sort of stuff, it’s fine, you know’*”. Such mind-sets require shifting to overcome this reluctance. Although this may be possible, I argue that any human reluctance to participate in TPI activities is difficult to overcome because the nature of workplace learning and capacity building is agentic and “partially person-dependent” (Billett, 2004c, p. 208).

Fitness for Purpose

Michaela (VET) sees one of the TPI challenges as “*creating a robust way for teachers to feedback what they’re finding in their experience of work ... and then translating that to new and effective teaching and learning experiences for our students*”. For industry representatives, the concern is around the teacher’s ability to be integrated into the host organisation, and this concern is reflected in the survey findings in Table 4.23. Fred (Industry) notes that the organisation may be keen for TPI arrangements to occur, but questions whether the staff will commit, given their own existing workload, in other words, will this cause extra work for the host organisation employees, and consequently friction between them and management, and the teacher on placement. Garrett (Industry) had a similar view citing “*the biggest challenge is how will they fit into the organisation, finding that slot for them ... to be able to do what they need to do, but also for the organisation to get what they want*”. Colin (Industry) focused on the practical side of the

placement, such as health and safety, induction, and insurance, but also importantly, noted that

I support ... a negotiation between the provider and company, as to what is the outcome we are looking for ... the management of it would be critical ... In terms of our own staff and their attitude to somebody coming in, they would have to be informed about what the person was coming in for, and what outcomes

It seems clear from the comments above, that there is potential for TPI activities to cause considerable workplace disruption, unless they are well managed, hence the importance of pre-placement negotiations to achieve agreed to goals and objectives. I argue that as private enterprise is largely driven by profit maximisation, it may view TPI activities as some form of philanthropical exercise, consequently, unless they see value for the firm, they may not be willing to participate.

Theme 6: Improving TPI Initiatives

An earlier review of VET teachers' TPI experiences (Schüller, 2013) highlights tokenistic approaches to its implementation, driven by the primacy for meeting departmental KPI and compliance requirements; and I can attest to this from personal experience. However, a major problem with this performativity approach (Ball, 2006) is the considerable impact it may have upon the quality of TPI activities, outcomes, and the experience of participants. Theme 6 addresses subsidiary research question 4: How might TPI opportunities be improved to provide greater benefits to all stakeholders? In analysing participants' responses, two sub-themes emerged:

1. Planning for TPI, and
2. The duration of TPI secondments.

Planning for TPI Activity

Leo (HE) noted the lack of strong infrastructure and adequate processes in place to support academics' professional development needs was a significant hurdle for TPI activities. He attributed this to the absence of "*a conceptually thought through support in universities that I think is at the hub of the wheel ... [as] ... far more genuine professional development support ... [was needed] ... to allow that to happen*". Richard (HE) pointed to the need for

some really well structured organisational steps beforehand ... [to ensure a] ... clear outline as to what the academic's expectations are from the host organisation, and also, what the host organisation's expectations are from the academic, [otherwise, it will be] a complete waste of time.

Jessie (VET) also advocated for more targeted and structured TPI initiatives for teachers to "*go out with the aim to ... be researching a particular thing*".

Cheryl (HE) advocated for project work in the belief that it would be pointless for an academic to do mundane work as "*their skills-set is ... being able to think, do research and solve problems ... to get the most for the organisation and for the academic, there would have to be something tangible, some question that needs solving*".

Bill (Industry) thought a work shadowing arrangement may be helpful in bringing a teacher "*up to speed with organisational practices and ... impart extra knowledge and reference points*" which could then be passed on to students, to equip them with knowledge of contemporary industry attitudes, needs and practices.

Theories of activity and communities of practice guide us to negotiating the goals and objectives of the industry placement, as conceptualised in Figure 5.2.

Figure 5.2: Third generation CHAT for TPI activities (adapted from Hardman, 2015)

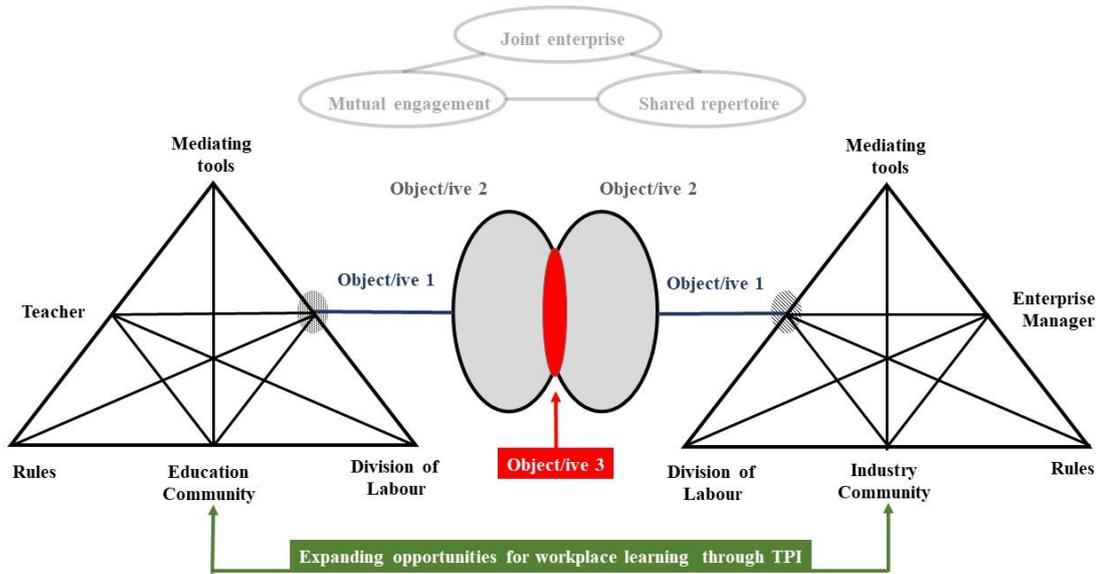


Figure 5.2 positions TPI activity against the background of three dimensions of a community of practice that supports learning (Wenger, 1998b). The establishment of particular individual and/or organisational goals (Object/ive 1 and Object/ive 2) requires mutual engagement and negotiation across the joint enterprises of the academic institution and host firm. Variable contextual factors influence what is learned through TPI activities, and who learns what. Negotiated arrangements will include the parties involved; their respective rules, roles, and responsibilities (division of labour); and the coordination of knowledge resources (tools of mediation) to be shared, with a view to transform current processes and/or practices (Object/ive 3) across the education and industry communities. Object/ive 3 is to satisfy particular needs of the stakeholders involved, including the means by which the activity will occur, as actions are realized through the situational variables that establish the conditions of such activity. (Billett, 2001, 2004b; Fuller & Unwin, 2004, 2011; Kaptelinin, 1996). As organisational needs change over time, this will require a shared “reconsideration” (Miettinen et al., 2009, p. 1318) of the object/ive

of the TPI activity, Object/ive 3 also represents the outcome of the TPI activities, which is to expand opportunities for workplace learning.

TPI Duration

The duration of any TPI secondment is influenced by the needs and constraints of the stakeholders. Participants' views on the TPI secondment period varied, but there was overall agreement that short-term placements of one or two weeks would not provide sufficient continuity for either the teacher or the host firm to achieve meaningful outcomes. Indeed, a longer period of exposure is likely to derive more benefits as "deep learning often proceeds slowly" (Gela, 2004, p. 8), and both mastering processes (Lave & Wenger, 1991) and the development of "partnerships based on bi-lateral contributions" (Meadon, 1990, p. 28) take time. There was strong agreement from most participants that TPI activity should occur on an ongoing/recurring basis.

Leo's (HE) preference was for "*academics who are able to engage in some shorter term, but ongoing process where they are constantly engaged with industry, rather than just every three, four, or five years having a chunk of time in industry*". He argued "*there should be a capacity for people to take industry leave*".

Matthew (HE) considered TPI on a "*fit for purpose*" basis. For some, "*a day a fortnight ... works out well ... not just a come in for six months and return [to academia] ... it has to be logistically manageable*". He favoured his staff be "*engaged continuously with industry as part of their job ... there needs to be an expectation that people will get involved, but also the opportunity too*".

Jack (HE) preferred "*at least three months full-time, or as much full-time as possible ... paid by the organisation or the university*", whereas Cheryl (HE), suggested six months "*as a minimum*" for her staff to be "*involved in a couple of projects and doing research*".

... it may be that they'd be [on secondment] for a few days a week, and then back here [the university] because all of the research infrastructure is in here”.

Stefanie (VET) preferred “a longer-term placement, anywhere from I think 3 to 12 months ... so they can deal with things on a daily basis and really get the nuts and bolts of the business sometimes, you know”. Longer placement periods, being *in situ* at least once weekly, were also preferred by Jessie (VET), Margaret (VET), Nathan (VET) and Rudy (VET), with some emphasis on flexibility during longer term placements.

Voices from industry strongly advocated for longer placement periods, with three months minimum being commonly agreed. As Luke (Industry) pointed out, the initial period on placement would be “to just figure out what's going on ... you know, what you are doing, what do you do?”. Pamela (Industry) echoed these comments by claiming that with short periods of exposure *in situ*, such as one day a week “you don't get enough continuity that way ... [and] ... by the time you come in next week you think: now hang on, where was I, and let me spend half an hour just reacquainting myself with it”. Colin (Industry) suggested an initial one week immersion/induction and then longer term project work with “possibly a project approach. The duration of that would depend on what the task was that had been mutually agreed to – this is the outcome we want”. Garrett (Industry) also favoured longer placements because “the academic needs to be in there sufficiently long enough to get what they need out of it ... but also, long enough to be able to get something back. So, it's got to be, you know, quite a good few months, or longer”.

The collective comments from participants, in relation to this theme, show a high degree of convergence on both the importance of planning for TPI activities and their duration. It is clear that where industry is willing to contemplate hosting a teacher *in situ*,

that they expect to have some return on their investment. It is also equally clear that from the education managers' perspectives, there needs to be clearly established goals and objectives for successful TPI outcomes. It is reassuring to see the union of opinions on the duration of placements, with the vast majority across all cohorts advocating for longer periods as they were of the firm belief these would provide the best outcome for all participants.

Theme 7: Evaluating TPI Outcomes

Matching the needs of the academic and host organisation are crucial if the full benefits of any TPI initiative are to be realised. To recall, one of the noted limitations of TPI activity concerns the nebulous nature of their outcomes (Mitchell, 2003). Theme 7 addresses subsidiary research question number 5: How might we know that TPI meets individual and organisational goals?

The evaluation of TPI activities is an important consideration as this enables the determination of whether the initiative was successful or not. Ideally, the evaluation should follow a 360-degree approach with their teacher, their manager, and the host partner manager being involved in the process. As the thesis focuses on managers' views of TPI initiatives, the evaluation by the teacher is not considered in this theme.

It became apparent during the interviews that the evaluation of TPI activities was the most difficult consideration for participants, with a number of them providing little detail, if at all. It seems curious that whilst participants, although citing challenges for TPI initiatives, had strong 'in principle' support for such activities, evaluation was one of the 'hurdles'. Yet, without evaluation we cannot know the outcome, and this has implications for the sustainability of TPI schemes.

Nathan (VET) suggested evaluation could be done through transfer of learned knowledge to colleagues, although he did not elaborate further. Mick (HE) did not specify how evaluation should occur, but was of the strong belief that the institution should “*consider some consequences if set objectives were not met*”. I have some reservations about this approach as this may be viewed as the ‘carrot and stick’ approach. Given the recognised nebulous nature of TPI outcomes, one would need to be very careful in setting transparent and measurable objectives, for to do otherwise may discourage any potential participant. I believe that there should also be some incentive for participating in TPI activities beyond just the payment of wages, but that would be left to the teacher and their employer to agree on.

Jack (HE) proposed three particular tools for evaluating TPI:

1. *Getting the academic to come back and give a number of lectures, talks, workshops about what they saw ... what they felt like ... and say, well, these are some of the things we can put back in the classroom;*
2. *Adapting some of those experiences into subject structures and course assessments; and*
3. *Through the smile on their face. Maybe it was a good opportunity for them to get into industry, so they feel competent and confident that what they are teaching, and researching, is current, up-to-date, useful, and they bring back some joy to their job.*

Cheryl (HE) suggested some practical outcomes that included post-placement activities such as:

write a report; um, they should be able to be interviewed by the media on what they got out of that; they should be able to comment on infrastructure financing in that particular example; so there should be some quantifiable outcomes in that sense. Um, maybe the institution could ask the teacher to write up case-studies from their experience to be used in classes, um, so that other people could use them too. Or that perhaps if they did write up a case-study in the department, we could have ... an informal seminar, so someone talks about their research in the session. But then if they shared that case-study with other academics, other academics would use that example in their class, so it's building resources.

Matthew's (HE) response indicated that outcomes could be multi-faceted depending on the TPI activities. As an example, he suggested that

if there's an expectation that flows back into teaching and learning then ... once an academic returns from placement, um, they have to say well, I've learnt this, I've seen this and then ... it's part of reporting what they're going to do ... in their curriculum in the subsequent semester, and then indeed, report on ... what they have achieved, and depending on what that is, it could be measured in terms of student satisfaction.

Matthew also sees other aspects of evaluation for longer-term placements that are indicative of a desire to deepen the relationship with the host organisation by posing a number of questions to the academic, post placement. These included the exploration of other projects/work that could be done with that organisation; whether they would be willing to offer guest lectures or offer career advice to students; offering work experience; or donating some money for student projects. He summed this up by saying that in terms of value, he was interested in experiences "*which then leads to a change in the culture of what we're doing*".

Richard (HE) was interested in not only having TPI evaluated, but also why TPI activities may have worked, or not be successful, in other words, he wanted to get to the core reasons be they positive or negative. His examples included the academics lack of commitment and the organisation's lack of resources such as no dedicated desk or computer terminal to work from. He also believed that "*part of the evaluation needs to be not just internal, but it needs to be independent from the host organisation, regardless of whether the university or the host organisation funded the academic*". Richard also believed that knowledge gained 'on placement' should be shared with others and used for learning and teaching, by doing

a presentation to the staff, or they could be part of a faculty meeting ... so the people can come back and say ah, "I went out there, this is what I did, this is what I got out of it, this is how I am planning to put this information back into the classroom, these are the changes that I'm making". So that it starts to change the culture, it starts to create its own momentum for people saying, "oh yeah, look, you know, we need to keep up to date" and what's one of the best ways to keep up to date is actually to go out there.

Jessie (VET) saw the TPI evaluation in a practical manner, by tying this to *to some kind of project so when they come back they have to, you know, develop something that can be implemented in a classroom situation, or whether you tie it to a project or a unit of competence or something tangible.*

Michaela (VET) favoured a double-loop evaluation approach.

There's the initial evaluation of what worked, what didn't, and what am I going to incorporate into a changed practice. And then there's the second loop or a second follow-up option that then occurs in 3 or 4 months probably, down the track, that says "OK this is what you said you were actually going to incorporate in practice, is that what you actually did or did you end up changing into something different? Which might be OK as well, but we just need to understand why.

Stefanie (VET) agreed that the knowledge gained on placement should be shared with colleagues, but in terms of evaluation, advocated for *"KPIs really, but some sort of metric, an indicator which allows it to be quantified or qualified"*.

Marta (VET) regarded evaluation as *"a subjective thing"* and in order to overcome this, she preferred an approach

based on certain criteria related to what this trainer [teacher] is going to teach. However, that being said ... individual organisations will have their own ways of dealing with evaluation of course, and if one of the objectives was for the teacher to come in and observe um, then a set of recommendations would be a good outcome, you know, are these sound recommendations? Or, I've come in and looked at the way your accounting system works, I've been here for the past however long, and I've noticed these inefficiencies or ... areas for improvement, you know, in some sort of form of report, then that would be beneficial.

From an industry perspective, Luke (Industry) advised

the most common strategy is the SMART goal ... [but] it depends on the particular project. I mean if a teacher is coming in to do a particular training program, we'd like to see some improvement in the knowledge and the knowledge sharing of staff who are working there for us to have gained something. It's difficult to measure that.

Nigel (Industry) believed there was a need for understanding the expectations of TPI activities, that is,

working that out from the beginning, and then going through and making sure you are meeting those throughout the period of the engagement, and doing a pulse check ... I mean checking to see if it's working, if the mutual expectations are being met ... and making sure they're measurable and making sure you're able to tick off on them, and making sure that you can have that conversation, you know... is this working? Do we need to change it? Um, is there I need to do, is there anything that I expect you to be doing? ... Why are you coming here? What do you want to get out of it? What do you hope to get out of it? You need to have those upfront. You know, "I'm hoping to learn more about the cultural environment; I'm hoping to learn more about how you act with suppliers; I'm hoping to learn more about you know, graduates who are coming in, what would be expected of them the first week, first three months.

Pamela (Industry) suggested employees should evaluate the teacher as this may make the employee more engaged in the teacher's activities and they may be more receptive in being involved and getting the teacher involved "*because there'd be nothing worse than a teacher coming in and twiddling their thumbs for half the time that they're there because that's an absolute waste for everyone*". Trudy (Industry) had an opposing view because being teachers "*it's not going to be easy for us to say we have to measure you or to make sure they know everything*", but she offered no further comments on evaluation.

Finally, Patrick (Industry) in evaluating TPI activities, he proposed to

look at efficiency gains where I could measure how long it takes to process a job. I guess that's what I'd be looking for. I wouldn't want to be babysitting staff, saying "hey, you need to tick this, to tick that on every document they do. You'd want to hope that they were able to be self-sufficient that I'm not micro-managing. That's how I would see it. It would have to be goal driven. If I think about it, it would need to be more project-based, from my point of view.

Conclusion

The data in this chapter has been drawn from semi-structured interviews conducted with HE, VET, and industry managers in Australia, seeking their views on the value of TPI initiatives. The views expressed here correlate with my own personal experiences of TPI.

The responses from participants, whilst acknowledging challenges and barriers to the implementation of TPI schemes, indicate a generally high level of support, highlighting a number of potential reciprocal benefits for all participants.

From the host industry perspective, there is a significant amount of goodwill for teachers to be up-to-date with current industry practices, knowledge, and skills, in order to augment the curriculum and produce more ‘work-ready’ graduates. From the educational institution perspective, there is a high level of interest to having teachers exposed to an industry environment, with the ultimate goal matching that of industry, that is, a more up-to-date and practically oriented curriculum that equips the student with the necessary knowledge and skills to enter the workforce. Implicit in the shared goal of having ‘work-ready’ graduates is the need to develop bi-lateral relationships through academia-industry partnerships, that provide opportunities for teachers to be *in situ*. There is also a requirement for TPI initiatives to be well planned and have pre-placement agreement among key stakeholders on the goals, objectives, and evaluation of the tasks and activities to be conducted. Whilst there doesn’t appear to be ‘in principle’ significant problems about the tasks and activities to be performed *in situ*, the matter of evaluation was one of concern to a number of participants, a few of whom found it difficult to address this topic. Yet, evaluation is an important consideration for TPI scheme sustainability – we need to know what worked, why it worked, and where it didn’t work – why?

The significant challenges to be overcome include:

- a lack of funding to support TPI schemes;
- poorly developed HR policies in the education sector that do not easily facilitate TPI opportunities; and
- academic workload pressures that are the outcome of educational reforms that have resulted in staff reduction, but not workload, and a move towards workforce casualisation.

The next chapter presents the conclusion. A summary of the findings from this exploratory study are provided along with recommendations designed to overcome some of the most significant challenges of TPI schemes.

Chapter 6: Conclusion and Recommendations

In this chapter, I present a summary of the key findings from this exploratory study. The aims and objectives of the study are first recalled, together with the underpinning research questions. The chapter then turns to a discussion of the overall results in relation to the theoretical framework, including knowledge work, perspectives of workplace learning and professional development in HE and VET. A statement of significance and contribution to the field is provided, recommendations for improving the status quo are suggested, and the limitations of this study acknowledged. Finally, areas for further research are proposed.

Research Aims and Objectives

In undertaking this research, I set out to explore HE, VET, and industry managers' perspectives of the value of TPI as a form of CPD.

The main question to be answered is: *In what ways may TPI contribute to the development of individual and organisational capacities?*

In order to address this question, the following five subsidiary questions were developed. The findings are presented in line with each of these subsidiary questions.

Subsidiary Research Question 1: Do Managers See any Value in TPI Initiatives?

The data from this study clearly highlight that managers across the three cohorts (HE, VET and private firms) see a high value for the teacher becoming involved in TPI initiatives. They recognise that individual capacity can be enhanced from the teacher being engaged *in situ* in a number of ways, including not only the immediate tasks of the industry placement, but also in considering longer-term opportunities for mutually beneficial project work and other means of networking. The development of education-

industry networks through TPI may lead to opportunities for developing commercial ventures involving other external stakeholders.

Educational institution managers also saw TPI activities as a means by which student learning is enriched, whilst at the same time contributing to the teacher's CPD needs. Host organisation staff may contribute to curriculum enrichment through guest speaker presentations; the sharing of authentic workplace artefacts; and being a source of employment by drawing on a pool of graduates from the teacher's institution.

Private enterprise managers saw benefit in having the teacher working across teams within their organisation, and also being able to utilise the teacher's knowledge and skills for their firm's staff CPD, signalling the mutuality of workplace learning and knowledge transfer, and individual and organisational capacity building that TPI activities bring with them.

Subsidiary Question 2: What Kind of Learning May Be Needed, by Whom and for Whom?

There was a convergence of results between education and private firm managers on the importance of having teachers equipped with current knowledge of industry practices, and this in turn links to improvement in the learning experience for students. However, private firm managers believed teachers to be out of touch and lagging behind in their knowledge of what is happening today in the rapidly changing world of work. Indeed, education managers commented on the lack of industry experience enjoyed by many of their staff, some of whom had never worked outside the education sector and were relying on textbook knowledge for student learning. Time spent *in situ* by the teacher on TPI activities would, therefore, be a means by which teaching obsolescence may be minimised. Education managers saw host firm employees as agents of change in TPI activities because of the role they would play in transferring their occupational knowledge

to the teacher *in situ*. Armed with this contextualised occupational knowledge, the teacher is able to better prepare students for the world of work by nurturing the graduate skills and competences expected by employers. In this respect, the teacher is also an agent of change, but as private firm managers indicated, this is not limited to the classroom, as they recognise that the teacher *in situ* can also transfer their disciplinary knowledge and expertise to the host firm staff and develop training to meet their CPD requirements.

There was also potential for curriculum reform through cooperation with host firms to identify any gaps between what is currently being taught, and the expectations of employers.

In summary, the answer to this question is that the learning needed by the teacher to benefit the students, but also by the host firm, through tapping into the teacher's knowledge to benefit their organisation. Everybody needs to learn, and everybody has something to give.

Subsidiary Question 3: What Are the Challenges of Implementing and Supporting TPI Activity?

HE and VET managers outlined the main challenges as unfamiliarity with TPI arrangements caused by an institutional policy vacuum; the difficulties of finding a suitable host organisation; and whether businesses would support TPI initiatives.

There are considerable impediments to TPI that speak truth to the contradictions that lay within neo-liberalist educational policy reforms. The impact of educational reforms on knowledge work within HE and VET were revealed through the contradicting realities of educators' difficult work environments. HE and VET domains have become unsettling sites of struggle as they are driven by cultures of performativity, and restrictive work environments that run counter to the expansive work environments, which are necessary to support broader national goals of workforce development and capacity building.

The continuing reduction in HE and VET funding; the pressures of increasing workloads upon management and staff; concerns over budgetary constraints; organisational restructuring; workforce casualisation and the logistics of finding a replacement teacher as a 'backfill' arrangement; are considerable matters that weigh heavily on HE and VET managers' decisions as to whether to support TPI activity. Any decision to support a TPI arrangement is likely to place additional workload pressures on other teaching staff, and further expenditure where replacement teaching staff needs to be outsourced. These factors work against national policies that seek to position educational institutions at the forefront of building knowledge and skills capacities to address industry's constantly changing labour market needs.

Simply summed up, HE and VET managers claimed the lack the funding to make TPI initiatives as much of a reality as they would have liked. In the HE sectors other challenges include overcoming what some perceived as a lack of genuine commitment to support such initiatives. Several reasons for this include the privileging of Mode 1, theoretical and research-based knowledge over more practical forms of knowledge (Mode 2) that may be gained from engagement in workplace practice; and a reluctance by some HE academics to go out into industry and work, as this would impact their research and publishing output, and hence affect their career progression. There was also some concern raised by HE, VET, and industry managers over the ability of teachers to 'fit in' to the host organisation's environment and be accepted by staff. Private enterprise managers were also concerned about the resource implications; the burden that TPI activities may place on their staff; and whether teachers would have the requisite 'skills-sets' to perform on-the-job. Given private firms are in business for profit, TPI activities were seen by some as a cost factor. Indeed, the vast majority of respondents were only prepared to consider

a placement if it was free to them. They favoured the idea of neutralising expenses through preferably government support measures such as tax breaks, or alternatively, government funded TPI schemes.

Subsidiary Question 4: How Might TPI Opportunities Be Improved to Provide Greater Benefits to all Stakeholders?

Private enterprise managers placed a high importance on the value of prior planning for placement in order to establish clear goals and objectives and achieve close alignment between the teacher's skills and aptitudes with those of their firm. In order to make the placement meaningful, they would make internal resources available to the teacher *in situ*. For education managers, there was some variation between HE and VET responses, with HE generally having a lower score than VET. In relation to pre-planning, just over half of HE managers believed this to be important, whereas two-thirds of VET ranked this higher. VET managers placed an extremely high level of importance on the establishment of clear goals and objectives and the teacher having access to adequate resources, but close alignment between the teacher's skills and aptitudes to match the needs of the host firm, although strongly positive, scored somewhat lower. The lower scores from HE managers are probably a reflection that TPI activities are not as common in this sector.

Nevertheless, the findings from this exploratory study point to the high importance of adequate pre-planning through preliminary negotiations to set mutually beneficial parameters for the placement. By necessity, this will include high level involvement by the key stakeholders, as they navigate through a highly complex range of issues that include:

- The organisation of administrative arrangements such as health and safety, security, and privacy;
- Utilisation of appropriate host firm resources;

- The timing and duration of the placement within stakeholder parameters;
- Teacher back-filling and upskilling of replacement teachers; and
- The assigning/reassigning of individuals' job roles and tasks.

On the subject of TPI duration, there is a convergence of preferences between managers across all cohorts. Longer periods of up to six months are preferred and even when lesser periods are considered, the preference is for the teacher to be *in situ* on a continual full-time basis, as this enables the teacher to be more fully immersed in the host firm's activities. This enables the formation of stronger human relations among professionals; the nurturing of longer-term networks leading to additional projects/research; and the ability to make a meaningful contribution to the host firm's business activities. There was also appetite for the placement duration to be repeated on a cyclical basis.

In answering this question, the findings highlight a high level of goodwill from both education institutions and private firms. However, one of the difficulties in materialising TPI opportunities is likely to be the issue of funding, discussed earlier.

Subsidiary Question 5: How Might We Know that TPI Meets Individual and Organisational Goals?

Evaluation of TPI activities has long been recognised as problematic in the literature, and this was acknowledged by some interviewees.

Not surprisingly, responses from private firms tended to prefer evaluation of TPI activities against pre-determined KPIs that, to be fair, also committed the organisation to meeting, or exceeding, the teacher's PD expectations, and this was seen across all firm sizes. However, these managers also expressed concern about the uncertainty of outcomes from hosting a teacher on placement. Education managers were also concerned about the outcomes of TPI activities, but at a comparatively much lower level. These managers also

looked for evidence of the teacher meeting or exceeding their educational institution's expectations. Private firm and education managers converged on the notion of showing effective participation through a range of engagements and collaborations involving the key stakeholders.

In answering this question, the main theme is around meeting previously agreed to KPIs as the form of evaluation. The KPIs are not unidirectional, as the host firm managers indicated they would also be held accountable in relation to meeting or exceeding the teachers' PD expectations.

Having considered the findings from the five subsidiary research questions above, I now turn to answering the main research question in the next section.

In What Ways May TPI Contribute to the Development of Individual and Organisational Capacities?

The data from this exploratory research paints a picture of positive possibilities that emanate from TPI initiatives. The development of individual capacities is evidenced through the upskilling of the teacher's knowledge and skills by their engagement in new kinds of workplace learning, through a legitimate form of participation that is likely to move from one of peripherality to one of more inclusion and centrality in the host firm's processes. As the teacher expands their knowledge of industry practices, they may be able to implement changes to their teaching repertoire and classroom activities to enrich the student's learning experience and enhance their work-readiness. Through TPI activities, the educational institution's capacities are expanded through more knowledgeable teachers and better education programs that are more aligned and relevant to the contemporary world of work. Additionally, the educational institution gains from a more relevant profile and reputation with host organisations, and may be able to further expand

its industry networks and opportunities to generate more collaborative joint projects and/or research.

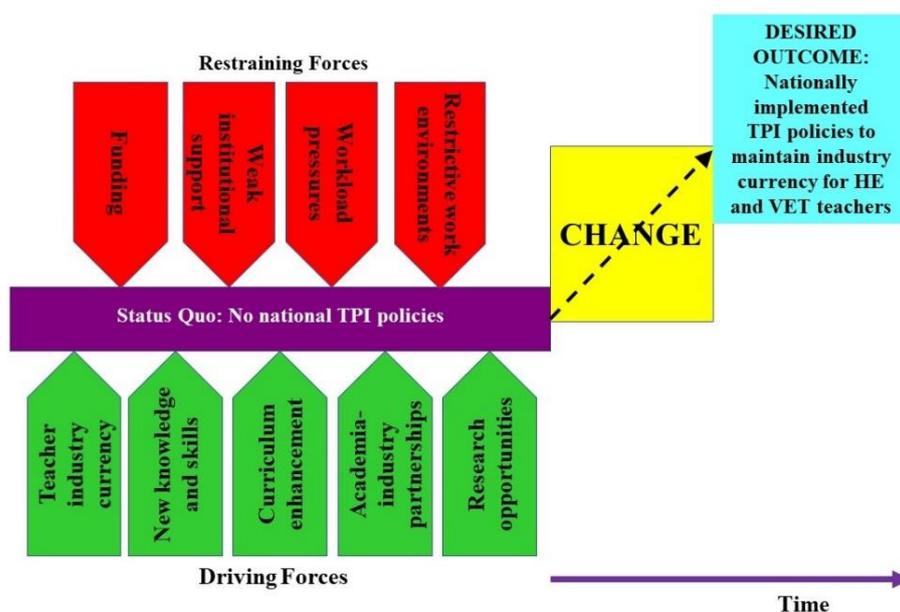
TPI activities may also make a contribution to the host firm. As the findings in this exploratory show, managers from private firms place a higher value on the teacher's knowledge and experience, and are willing to capitalise on this for the benefit of their staff's CPD. The teacher can therefore make a contribution to the development of the individual capacities of the host firm staff by sharing their knowledge and experience with professional colleagues. In turn, this may lead to innovative workplace practices as the host firm staff expand their knowledge base and may view processes from a different lens, to bring about improvements in the firm's systems and processes. The organisation expands its capacity through a more knowledgeable and better equipped workforce. Innovation and improvements are likely to result in greater wealth creation for the firm, and that may lead to greater economic activity and profit.

Notwithstanding the positive possibilities TPI provides, there are significant hindering factors that need to be overcome to fully realise the beneficial potential of TPI initiatives. I have conceptualised the main positive and negative forces identified through my research, using Lewin's (1951) Force Field Analysis, shown in Figure 6.1, as I later propose a number of recommendations designed to change the status quo.

As can be observed from Figure 6.1, the current status of national TPI policy is influenced by a number of restraining (negative) and driving (positive) forces. The driving forces are mainly centred on transfer of knowledge between the key stakeholders involved in TPI activities, with the resulting changes in curriculum and the development of industry-academia partnerships that may lead to joint projects/research. As the driving forces are positive, whilst they can always be more optimised, they are not the focus of

discussion of Figure 6.1. However, the restraining forces, being negative, are the ones that need to be changed in order for reform to occur. The predominant restraining force identified in this research is funding, for without money, economic activity is unlikely to occur. TPI initiatives involve economic activity, as these require the allocation of resources from both the educational institution and the host organisation. As HE and VET managers have disclosed, there is a lack of funding to maximise opportunities for a greater uptake of TPI opportunities. Likewise, host organisations are reticent in incurring expenditure without a return on their investment, and they view favourably, some external form of expense neutralisation subsidy.

Figure 6.1: Drivers and constraints of TPI (adapted from Lock, 2019)



Weak institutional support for TPI activities have been identified and this appears to be related to a policy vacuum, and where policies exist, their implementation is questionable. Workload pressures are another negative factor, and these may be related to aspects of funding, as the current working environment in post-secondary education in Australia appears to have been largely driven by ideologies that have resulted in a continuing, consistent reduction in budgetary allocations. The lack of funding is a catalyst

for the fostering of restrictive work environments, where employees are not recognised as being learners by management, consequently, TPI activities are not a priority consideration for CPD.

The environment influenced by the restraining forces requires reform as a way of changing the status quo, and this is shown by the yellow box in Figure 6.1. The result of bringing about change should produce the desired outcome, which is, a range of nationally implemented TPI policies to maintain industry currency for HE and VET teachers, as shown in the blue box in Figure 6.1.

Theoretical Framework and Findings To recall, this study draws from the theoretical framework pertaining to socially situated theories of workplace learning, as outlined in Figure 2.3. Theories of activity systems, communities of practice and the expansive-restrictive workplace continuum assist in understanding the socially situated nature of workplace learning and professional development through TPI activity, and the elements that support or hinder opportunities for this form of CPD.

As knowledge workers, HE and VET educators play an important role in contributing to the development of economic and social capital, by equipping students with the disciplinary knowledge and competencies required for occupational practice. Organizational practices, however, are in a constant state of flux, as demonstrated by shifting patterns of work, new technologies, and changing work roles. This presents considerable challenges to HE and VET educators in maintaining their knowledge of current industry practices, relevant to the disciplines they teach. The generation of new knowledge is dependent upon the formation of collaborative ties between academia and industry, as this helps connect the skills-sets and experiences of individuals across different worksites.

TPI enables legitimate peripheral participation (Lave & Wenger, 1991) across broader constellations of practice, providing educators with insights into the nuances of diverse business practices; repertoires of knowledge; and to different ideas as to what matters (Wenger, 1998).

As a boundary-spanning activity, TPI initiatives offer ways of bringing teachers and industry participants together as learners, by taking HE and VET educators into different communities of practice. The teacher is exposed to unique workplace practices in an industry setting, and the knowledge gained *in situ* brings new insights about the business culture, its systems, and processes. It is through the teachers' legitimate peripheral participation in an industry workplace setting that "the social structure of the practice, its power relations, and its conditions for legitimacy define possibilities for learning" (Lave & Wenger, 1991, p. 98). These possibilities extend across institutional and organisational boundaries and activity systems, offering scope for expansive forms of workplace learning. This potential may be realized as the subject/s of TPI activities, that is, the HE and VET teacher; educational/institution managers; industry host firm managers and their employees, collaborate over ways to engage teachers in new kinds of work activities that build upon their existing knowledge, while, at the same time, pursue ways of improving existing workplace practices.

The value of TPI is seen through opportunities for joint projects; networking between academia and industry; building teacher industry currency to enhance classroom teaching and learning practices; building organisational knowledge; and enhancing organisational systems and processes. However, despite the overall positive view of TPI schemes as evidenced by the empirical findings from this study (see Tables 4.6, 4.7, 4.18, and 4.19), such initiatives are not without their challenges (see Tables 4.10 and 4.23). The challenges

of implementation include the resources needed to support TPI activity; interference with teaching timetables; organizing teacher backfill arrangements; and locating organisations who are willing to participate in such schemes. From an institutional perspective, TPI may be desirable, but funding issues make it difficult for HE and VET managers to support it (see Tables 4.10 and 4.23). PD funding is often allocated in a reactive, rather than strategic manner (Harris et al., 2001), and this is evidence of the low priority given to workforce development for HE and VET educators. This status quo is underpinned by a neoliberalist/performative culture that continues to pervade management decision-making across the HE and VET sectors, giving rise to limited PD opportunities for HE and VET educators to maintain their industry currency.

The expansive-restrictive continuum (Fuller & Unwin, 2004) informs us that in this current environment, organisations adopt a restrictive approach. This is likely to hinder PD activities, with negative impacts on workplace learning, leading to professional obsolescence (Clayton, 2012; Clayton et al., 2011). This is concerning, as it has further implications for the relevance and quality of educational practices, and to broader national goals for workforce development and capacity building.

Other factors that hinder TPI activity, such as weak institutional policies and the lack familiarity with such opportunities (see Table 4.10), also highlight the low priority given to such initiatives. These issues pose considerable, but not insurmountable, hurdles for managers.

Drawing from activity theory, these challenges constitute forms of disruption/tensions, that nevertheless, should not dissuade management from engaging with private enterprises to seek out opportunities for mutually beneficial TPI initiatives. All human activity systems are challenged by disruptions, yet disruptions are also a force

for change and innovation (Engeström, 1987, 2001). In reality, TPI activities will only materialize where there is acknowledgement of its value, and where the prospects for knowledge building are shaped by a management culture that encourages workplace learning - hallmarks of an expansive workplace (Fuller & Unwin, 2004). Expansive workplaces are those that support staff development in a variety of ways, including: staff training; learning opportunities inside and outside the workplace through cross company experiences; valuing innovation; and staff career progression. The findings show that there are aspects of expansive workplaces, yet there is also evidence of restrictive practices (see Tables 4.6, 4.18, 4.19, 4.21 and 4.22).

TPI initiatives do not operate in a vacuum, as all human activity systems are affected by a multitude of factors that will influence what can be achieved. The willingness of managers to support TPI initiatives are dependent upon their motivations for doing so, and these are typically driven by some form of reciprocal benefit, such as the teacher gaining industry experience whilst the organisation gains potentially from suggested improvements the teacher may bring to existing processes. What can be achieved through TPI activity will very much be influenced by the planning carried out beforehand (see Tables 4.11 and 4.25). A strategic approach will involve relevant *subjects* (educational and industry managers; teachers and employees) in the negotiations around TPI *objective/s*; negotiations around the *division of labour* and alignment of skills-sets; tools/resources to enable authentic, mutually beneficial TPI experiences; and mediating processes for evaluating TPI *outcomes* are critical aspects to TPI planning, as illustrated by participants' responses. Characteristic with all activity systems, human intersubjectivities and socio-cultural factors, as shown in Figure 2.7, add a complex dimension to workplace learning experiences, and a teacher's experience of their

peripheral participation in TPI activity. Conflicting agendas; the politics of power; the willingness of employees to support TPI; individual dispositions and the limits imposed by host firm management on what activities the teacher can participate in, will influence TPI initiatives. How HE and VET teachers, managers, and enterprise employees engage with each other and what each contributes to those encounters are illustrative of socio-relational dimensions of workplace learning and professional development.

In summary, as a boundary crossing activity, TPI constitutes a joint enterprise that necessarily requires buy-in from key stakeholders, that is, the educational institution, the HE/VET teacher, and private enterprise managers. Successful TPI endeavours, notwithstanding their challenges, have real potential to expand learning in the workplace and increase knowledge capital.

The types of changes that should be considered to achieve the desired outcome shown in Figure 6.1 are outlined in the forms of recommendations that are provided in the next section.

Recommendations

The findings from this exploratory study show a correlation between existing literature on TPI initiatives, in terms of their benefits and challenges. In addition, the findings confirm that HE, VET, and private enterprise managers have a considerable amount of goodwill towards TPI activity. Despite the challenges of supporting and implementing these initiatives, I offer a number of recommendations below. These are aimed to improve the status quo, with a view to creating incremental opportunities for greater support of TPI initiatives, through increased engagement by the key stakeholders.

Each recommendation provided below stands on its own and should not be regarded as being mutually exclusive to other recommendations.

Recommendation 1: Developing and Maintaining Industry Currency

Given the acknowledged benefits of TPI, it is recommended that HE and VET institutions actively promote TPI opportunities as part of their workforce development planning. To maximize opportunities for successful TPI activities, I recommend that HE and VET institution HRM departments develop their own '*Industry Currency/Training Needs Analysis*' document to assess the potential for teaching staff to be involved in TPI activities. As a teacher CPD self-assessment tool, this document would be used by the HRM department to 'flag' individual teachers who are interested in pursuing TPI opportunities. The HRM department would then make this information available to the teacher's department manager, in order to begin strategic conversations about TPI opportunities, exploring options, seeking clarification of mutual goals and objectives, and the means by which these may be achieved. Once agreement has been achieved between the teacher and their manager, the next step would be to commence a dialogue with potential host organisations. Ideally, throughout this process, the HE/VET department manager acts as a 'broker' between the teacher and potential host organisation/s to mediate suitable TPI arrangements that would meet the needs of each party. By necessity, the teacher would also be involved in these pre-placement negotiations, however, for legal and regulatory purposes, best practice would indicate that a formal arrangement between the educational institution and the host organisation should be entered into. Issues such as public liability, occupational health and safety, commercial 'in confidence' considerations, workers' insurance and remuneration are all aspects that may need to be considered depending on the type of TPI activity. Consideration should also be given to

the duration of the TPI, the workplace activities to be engaged in by the teacher *in situ*, the resources to be made available by the host firm, together with the agreed outcomes and how these will be evaluated. The use of a checklist would be a helpful tool for working through these pre-placement negotiations. Whilst it is likely that the host organisation will require the teacher to enter into some form of employment-like contract to mitigate risks, these are issues that must be agreed upon prior to the TPI activity commencing.

Recommendation 2: Embedding TPI into Workforce Development:

The TPI sabbatical could be incorporated into Australian Universities Quality Agency (AUQA) standards for re-accreditation. The current sabbatical leave that universities offer on a limited and competitive basis does not lend itself easily to incorporate TPI activities. One of the recommendations is that universities should introduce a sabbatical like-leave option called '*TPI Sabbatical for Academics*' to enable TPI activities to be conducted. This reform could occur in two phases. In Phase 1, the TPI sabbatical could be made available to 'teaching only' academics, and in Phase 2, it could be expanded to other academic staff. Unlike traditional sabbatical programs, the TPI sabbatical should not be competitive, and should occur at regular intervals, and form part of the longer-term workforce development strategy. It should be mandatory, unless the teacher can demonstrate current industry experience linked to their area/s of teaching, and deemed acceptable by the educational institution. The TPI sabbatical should be introduced sector wide, funded accordingly, and be separately accounted for. The reason for a national roll-out, and national funding would be to create a level playing field across all universities. The TPI sabbatical should have clearly defined goals and objectives, and should have a transparent evaluation process. Each university should report annually on TPI activities.

These TPI processes could be similarly applied to the VET sector. Although there are existing TPI schemes in the VET sector, the opaque nature of their funding does not currently make it possible to know their uptake or success rate.

One approach is to really drive it to a national standard to make it uniform, and proportionate to the number of teaching staff. The funding criteria could be tied to the number of employees identified, that is, equivalent full-time ‘teaching only’ academics.

To try and estimate the funding costs for the suggested TPI sabbatical activities, the figures estimated by Whelan (2017) could be used as an approximate guide. According to (Whelan, 2017), “the estimated total number of teaching academics at Australian universities is 3,212 (in 2015)” (p. 173). The TPI sabbatical could be implemented as a two-step approach. In the short term, a more intense placement, say three months, could be afforded to each ‘teaching-only’ academic, after which time a shorter, less intense TPI initiative would apply. In the first stage, the idea is for the ‘teaching only’ academic to become familiar with specific industry practices. Beginning from the premise, that, as evidenced by the comments from respondents, academics are out of touch with contemporary business practices, therefore, an intense period should provide an avenue to overcome the ‘theory-practice’ gap. Once the initial placement has occurred, the ‘teaching only’ academic should only need “refresher placements” of say, two weeks’ duration, to catch-up on the latest practices in industry. In other words, the Stage 1 intensive practice is the foundation for practice, and the Stage 2 refreshers are an update. The national average salary for a lecturer is \$103,488 per annum (Glassdoor Inc, 2020). In deriving an approximate cost for TPI sabbatical, Stage 1, that is, a full-time release, we can calculate an approximate average cost of \$25,872 ($\$103,488/4$) per ‘teaching only’ academic. We can further calculate an estimated national cost as being \$83.1M ($\$25,872$

x 3,212). This is equivalent to less than 1% of the Australian government “student related public funding for higher education [which] is close to \$8.5 billion a year” (Grattan Institute, 2015). The cost of this proposal will diminish considerably during Stage 2, where the TPI sabbatical refresher will have a duration of two weeks. The total estimated cost for Stage 2 is approximately \$12.8M ($\$3,980 \times 3,212$), which is roughly equivalent to 0.15% of the total government funding mentioned above. These costs do not appear to be overly significant in the broader scheme of education expenditure, yet I argue here, that their long-term impact is likely to produce much greater economic and social value than the initial monetary outlay. I base my assertion on the fact that it is generally accepted that education is a significant driver of economic and social value. Consequently, it stands to reason that the better the quality of education, the higher its economic and social value. Having teachers with up-to-date knowledge should create a learning environment that produces more ‘employer-ready’ graduates. In turn, potentially increasing workforce participation, one of the drivers of a nation’s wealth. Consequently, I argue that for TPI schemes to be sustainable, there needs to be a change in governments’ attitude relating to the way they currently view funding of TPI activities - a shift from a ‘cost-based’ mentality to an ‘investment for the future’ mentality. TPI is a means by which societal knowledge capital can be enhanced for the long-term prosperity of the nation, therefore, its cost is an investment for the future.

Recommendation 3: Funding

Government funding should be allocated to TPI activities as it is evident from the responses that the vast majority of organisations were not willing to fund TPI activities, expecting resources to be allocated by government, as essentially firms don’t see

themselves as charity-like organisations, and/or their corporate/social responsibility does not extend to encompass TPI schemes.

Funding is an area of concern because it is not given the priority it deserves due to the competing aims that are largely driven by government policies. It is generally accepted that the neoliberal ideology is based towards private sector development. This is reflected in the performative nature of funding and increased government funding shortfalls requiring both the VET and HE sectors to find alternate sources of income. Consequently, in this environment, TPI schemes are a low funding priority.

Recommendation 4: Tax Incentives

Tax deductions should be offered to private enterprise to offset the costs of hosting teachers on placement. This could encourage industry participation in such schemes, resulting in a potentially larger pool of organisations across different sectors, thereby increasing TPI opportunities.

Recommendation 5: Standardising TPI Requirements for VET

To create a level playing field, private RTOs should be subjected to the same criteria for TPI activity as publicly funded TAFEs, particularly given that private RTOs are the recipients of significant government funding. This requires a government policy change to alter the existing funding criteria. There needs to be transparency and accountability for how public funds are expended on TPI activities, rather than the current opacity of funds being channelled into a centralised pool, leaving it to individual institutions to decide how these funds are expended.

Recommendation 6: VET Reforms

Reforms are recommended in the VET sector to further embed TPI opportunities into the sector for both public TAFE and private RTOs, by promulgating a national standard

for industry currency that prioritises TPI activities. Given the VET sector is state funded, an approach akin to the one used for the implementation of national training packages is required, to produce a truly national TPI standard. Whilst it is acknowledged that variations in funding from state to state is a reality, the approach should nevertheless be towards establishing a national framework.

Recommendation 7: Creation of a National Register

To maximise the success of TPI opportunities, I propose the setting-up of a national register of private enterprises and educational institutions interested in participating in TPI schemes. The register would capture information about the industry currency needs of educational institutions, and what private firms are willing to contribute in that respect. Furthermore, the register would capture the workforce development might be seek from a placement, and would be willing to offer This would be in essence, a matching process between industry and academia. The register should be administered at the national level by the Department of Education, Skills and Employment.

In summary, the key elements of these recommendations for TPI are:

A mandated number of TPI hours for industry and teaching currency; certification or accrual of credit for TPI activities, increased funding allocation, and improved accountability for TPI funding.

Significance and Contribution to Knowledge

This exploratory study has made an original contribution to knowledge relating to TPI as an investigation of this kind has not previously been conducted in Australia. The study fills a gap by bringing in the voices of HE, VET, and private enterprise managers on the value of TPI. Their views have expanded the existing body of knowledge in this area, providing greater insights into opportunities that exist for developing relationships

between industry and HE-VET institutions, through mutually beneficial professional development initiatives in the context of TPI schemes. The study adds to the scholarly research and literature in the field of workplace learning and CPD. This study should be of interest to education policymakers, senior management, and HR professionals across all levels of government, as well as the private sector.

I hope that the findings in this thesis may encourage greater dialogue between VET, HE, and industry decision-makers regarding the nature and practice of TPI, and through such discussion, foster increasing interest in supporting such activities. Although this study has focused on business disciplines, the findings should also be of relevance to other disciplines.

The results from this exploratory study ought to be of importance in an international setting, due to their generic nature. The findings ought to be able to be transferred to different settings in different nations. However, whilst in theory this may be applicable, in practice this may not be so. The limitations of the applications of the findings of this study to an international setting will be in the government policy and regulations of any particular nation, and the willingness of private enterprise to participate in TPI schemes.

Limitations

I acknowledge that this research has some limitations, and care should be taken when applying the results, as:

- The study was exploratory in nature, consequently, the number of observations was limited and not representative of the populations at large;
- The sample of populations was limited to Australia and different results may be obtained with different population samples; and

- The quantitative data variables were measured on a categorical scale, limiting their use for advanced analysis.

Scope for Further Research

There is scope to extend this research in the future through focus groups involving not only teachers, academic institutes, and host organisations, but also other actors who may have an interest and/or provide meaningful input. These include labour unions, industry organisations, and government policy makers. Widening the participation to include these other groups should deepen the conversation by providing more diverse voices for debate, and contribute further to TPI policy decision-making. Future research in this area could also be more targeted to specific industries to take into consideration the types of TPI working arrangements that would best fit their needs.

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Appendix 1

A 1.1 Information to Participants

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled Workplaces as sights (sites) for learning: An investigation of the value of industry placements.

This project is being conducted by a student researcher Ms. Annamarie Schüller as part of a PhD study at Victoria University, under the supervision of Dr. Margaret Malloch from the College of Education at Victoria University.

Project explanation

This project aims to gather data about the factors that may influence workplace learning through industry placement schemes for teachers who work in the higher education (HE) and vocational education and training (TAFE/VET) sectors. The study will assess the views of managers working within Australian organisations and their counterparts in universities and VET institutions, about the opportunities and challenges of hosting/implementing teacher industry placements. There are no risks to you from participating in this project beyond normal inconvenience. No sensitive personal or commercial data is being sought and all data will be treated with the utmost confidentiality and not be disclosed to third parties.

What will I be asked to do?

You are asked to complete an online survey and if you are willing to do so, you may additionally provide your contact details for participation in a semi-structured interview at a time and date that suits you.

What will I gain from participating?

You will have an opportunity to express your views by participating in this study. The collective body of knowledge gained by the input from various managers working in Australian organisations, universities and vocational education and training institutions should assist the creation of a framework supporting mutually beneficial industry-education partnerships, and contribute to the development of organisational capacities across these sectors.

How will the information I give be used?

The information will be analysed using combined quantitative and qualitative research techniques. Confidentiality and anonymity are assured. Data will be de-identified and published in aggregate form only. Therefore, it will not be possible for individuals or organisations to be identified in any public output.

What are the potential risks of participating in this project?

There are no risks to you from participating in this project beyond normal inconvenience. No sensitive, personal or commercial data is being sought and all data will be treated with the utmost of confidentiality and not be disclosed to third parties.

How will this project be conducted?

Your participation requires you to complete an online survey and, if you are willing, to further participate in a semi-structured interview.

Who is conducting the study?

The study is being conducted by Ms. Annamarie Schüller, PhD student, College of Education, Victoria University, P.O. Box 14482, Melbourne, Australia. Contact details: Mobile: 0412752214; Email: annamarie.schuller@live.vu.edu.au.

The Chief Investigator of this project is: Dr. Margaret Malloch, College of Education, Victoria University, P.O. Box 14482, Melbourne, Australia. Contact details: Email: Marg.Malloch@vu.edu.au or phone (03) 99194175.

Any queries about your participation in this project may be directed to the Chief Investigator listed above.

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001; Email researchethics@vu.edu.au or phone (03) 9919 4781 or 99194461.

A 1.2 Survey Instrument: HE and VET Managers

A NATIONAL SURVEY

ON

THE VIEWS OF SENIOR MANAGERS AND HEADS OF DEPARTMENT IN AUSTRALIAN UNIVERSITIES AND THE VOCATIONAL EDUCATION AND TRAINING SECTOR

The role of industry placements for educators in the Australian higher education (HE) and vocational education and training (TAFE/VET) sectors: Building capacities across organisational boundaries.

Definition of certain terms used in this survey

Teachers: Refers to academics in higher education (universities), as well as teachers and trainers in the vocational education (TAFE/VET) sector.

Educational institutions: Refers to universities in the higher education sector, and to technical and further education (TAFE) institutions in the vocational education and training (VET) sector.

Teacher industry placements: Refers to a voluntary arrangement whereby the teacher is seconded to an industry host firm for an agreed period of time to gain insights into current industry practices that are relevant to the courses they teach. The teacher undertakes specific tasks agreed to beforehand, to support the work of the host organisation. Teacher industry placements operate as a form of up-skilling and professional development for the teacher, with anticipated mutual benefits for the host firm, the academic institution, the teacher and their students.

SURVEY QUESTIONS

2. Are business discipline subjects/units taught in your department?

Yes No

3. What is your gender? Male Female

4. What is your age group? Please select from the categories below

- 18-39 yrs
- 40-49 yrs
- 50-59 yrs
- 60+ yrs

5. How many years have you been working for in total?

- Less than 5 years
- Between 5 and 9 years
- Between 10 and 19 years
- 20 years or more

6. How would you classify the organisation you currently work for?

- a. Public university
- b. Private university
- c. Dual sector university (combined university/TAFE organisation)
- d. TAFE (VET) institution
- e. Private Registered Training Organisation (RTO)
- f. Other. Please specify below

7. What products and/or services does your organisation provide?

8. What is the size of your organisation? Please select one from the following list.

- a. A large enterprise (250 employees or more; turnover exceeding \$70M Australian dollars)
- b. A medium enterprise (50-249 employees; turnover not exceeding \$70M Australian dollars)
- c. A small business (3-15 employees; turnover not exceeding \$14M Australian dollars)
- d. A micro enterprise (1-9 employees; turnover not exceeding \$3M Australian dollars)

9. What is your current job title?

10. How long have you worked in this role?

- a. Less than 5 years
- b. Between 5 and 9 years
- c. Between 10 and 19 years
- d. 20 years or more

11. How many full-time ongoing teaching staff are you responsible for?

- a. 0
- b. 1-4
- c. 5-9
- d. 10-19
- e. 20+

12. How many contracted/part-time teaching staff are you responsible for?

- a. 0
- b. 1-4
- c. 5-9
- d. 10-19
- e. 20+

13. How many sessional (casual) staff are you responsible for?

- a. 0
- b. 1-4
- c. 5-9
- d. 10-19
- e. 20+

14. How many years in total have you been working with your current employer?

- a. Less than 5years
- b. Between 5 and 9years
- c. Between 10 and 19years
- d. 20years or more

15. What is your highest formal qualification you hold? (Please identify from the list below):

- a. Secondary school completion
- b. Diploma/Advanced Diploma or equivalent TAFE (VET) qualification
- c. Bachelor (undergraduate) Degree
- d. Post Graduate Certificate
- e. Post Graduate Diploma
- f. Master (post-graduate) Degree
- g. Doctoral Degree (Phd, DBA or equivalent)
- h. Other. Please specify

16. What fields of study are offered by your department?

- a. Accounting
- b. Banking and Finance
- c. Building and Construction
- d. Business Communications
- e. Child-care services
- f. Economics
- g. Electronics
- h. Engineering
- i. Hairdressing
- j. Health Services (i.e. Nursing; Aged-Care Services)
- k. Hospitality and Tourism
- l. Human Resource Management
- m. Information Technology / Computing Science
- n. International Trade Practice
- o. Logistics Warehousing and Wholesale Chain Management
- p. Management
- q. Manufacturing
- r. Marketing
- s. Occupational Health and Safety
- t. Operations Management
- u. Project Management
- v. Retail Management
- w. Risk Management
- x. Other (Please specify below):

17. In which industry sector are you more likely to support teacher industry placement experiences for your teaching staff and in which types of job roles? Please identify by listing the relevant industry sectors and job roles in the appropriate text boxes below.

Industry sector	Type of Job role (you may list more than one for each sector)
1	
2	
3	
4	
5	

18. Are you familiar with the concept of teacher industry placement schemes?

Yes No

19. During your working history, have you ever supported a teacher in an industry placement arrangement within your own work area?

Yes No

20. What kind of support was provided? Please specify in the text box below

21. What do you perceive to be the possible benefits of teacher industry placements?

On a scale of 1-5 (with 1 being Strongly Agree and 5 being Strongly Disagree), please rank your response the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) Time spent in industry would help teachers build their knowledge of current industry practices that are relevant to their fields of teaching.					
ii) Teacher industry placement enable teachers and industry professionals to work together on mutually beneficial projects that may build capacities for the industry host organisation and the educational institution.					
iii) Teacher industry placements may enhance classroom teaching and learning practices.					
iv) Teacher industry placements may provide the industry host organisation with access to a pool of potential graduate recruits.					
v) Teacher industry placements support networking between higher education teachers and industry professionals.					
vi) Teacher industry placements may bring closer forms of co-operation between industry-academia that are mutually beneficial for the parties involved.					

vii) Teacher industry placements are a way to build teachers' knowledge of current workplace practices.					
viii) Teacher industry placements may contribute to curriculum development that is more relevant to the needs of today's workplaces.					
ix) Teacher industry placements may build e-learning opportunities between the host firm and education institution.					
x) Teacher industry placements may influence teaching practices to make them more relevant to the current world of work.					
xi) Teacher industry placements may connect classroom learning to the world of work, including teacher knowledge of jobs, career fields, and work opportunities for students.					
xii) Teacher industry placements may lead to mutually beneficial project work between the industry host organisation and the educational institution.					

22. Under what circumstance would you agree to support a teacher through an industry placement scheme?

On a scale of 1-5 (*with 1 being Strongly Agree and 5 being Strongly Disagree*), please rank your response in the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) To support academic staff training and professional development needs.					
ii) To meet departmental KPIs for staff professional development to achieve audit compliance.					
iii) To enable teachers to gain insights into current business practices relevant to their areas of teaching.					
iv) To build organisational knowledge and enrich student learning.					
v) To promote opportunities for mutually beneficial joint project work between my department and the industry host partner.					
vi) To build organisational and individual capacities.					
vii) To build networking opportunities between educational institutions, academics and industry professionals.					
viii) To fill teachers' teaching load requirements - for example, if a teacher was 'under-loaded'					

23. Please indicate the degree to which the following general statement may negatively influence your support for a teacher industry placement arrangement.

On a scale of 1-5 (*with 1 being Strongly Agree and 5 being Strongly Disagree*), please rank your response in the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) I am unfamiliar with such arrangements.					
ii) Teacher industry placements are unlikely to result in the kind of teacher professional development outcomes that would add value to the teaching programs or benefit our department.					
iii) We lack the resources to support it.					
iv) The disruption it would cause in terms of back-filling teacher positions makes it difficult to support.					
v) It would complicate teacher timetabling and staffing arrangements.					
vi) It would be too difficult for my department to accommodate it.					
vii) The outcomes of teacher industry placements are too vague, with no real returns on the investment of resources that are needed to accommodate it.					
viii) There is no value in it for the host organisation, the teacher, students or the educational institution.					
ix) It is too difficult to identify a suitable host organisation that is willing to support it.					
x) Businesses are unlikely to support it.					

24. Does your institution have policies that support teacher professional development through industry placement schemes? (Please identify your response below):

- a) Yes
- b) No
- c) Not sure

25. Which of the following measures might be used by your institution for evaluating the effectiveness and outcomes of a teacher industry placement arrangement?

On a scale of 1-5 (*with 1 being Strongly Agree and 5 being Strongly Disagree*), please rank your response in the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) Achieving close alignment between the teachers' skills and aptitudes and the needs of our organisation.					
ii) Demonstration of adequate pre-planning between, our institution, the teacher, and host organisation prior to the commencement of the placement.					
iii) Evidence of clearly established goals and objectives to guide the industry placement arrangement.					
iv) Evidence of the teacher consistently meeting or exceeding our organisation's expectations.					
v) The teacher's timely completion of set work, and to industry standards.					
vi) The host organisation meeting or exceeding the teacher's professional development expectations.					
vii) The teacher having access to adequate resources to support the industry placement initiative (e.g. induction; working space; work equipment; staff mentors; etc.).					
viii) Effective participation demonstrated through various forms of engagement and collaboration between the teacher; our institution and the host organisation.					

26. In your view, should more be done to nurture mutually beneficial alliances between educators and industry, to support workplace learning, build organisational capacities and prepare work-ready graduates?

(Please indicate your response):

Yes No

27. Do you see any potential value for your department supporting a teacher through an industry placement arrangement?

1. Yes
2. Maybe
3. No

28. How long would you be willing to support a teacher working in your department, through an industry placement arrangement?

(Please select ONE (1) response from the list below):

Statements	Agree	Disagree
i) A full teaching semester release for full time work in industry.		
ii) A fractional teaching semester release for working in industry one day per week.		
iii) A one month release for full time work in industry during the teaching period.		
iv) A one month release for full time work in industry during the non-teaching period.		
v) A one week release for full time work in industry during the teaching period.		
vi) A one week release for full time work in industry during the non-teaching period.		
Other. (Please identify on the text box below):		

29. If there are there any additional comments you wish to make, please use the text box below:? (If so, please specify in the space below):

30. Please indicate whether you have any objections to the data in this survey being used for other research purposes, AND whether we may contact you again in the future in relation to this type of research. Please note that any information you provide will be subject to the strictest confidentiality and anonymity considerations. Data will be de-identified and only published in aggregate form to prevent individuals and organisations from being identified.

- Yes, you may use my data for future research projects
- Yes, you may use my data for future research projects and you may contact me again
- No, you may not use my data for future research projects
- No, you may not use my data for future research projects and you may not contact me again

31. Are you willing to be interviewed in relation to this survey? (Please identify below):

Yes No

If Yes, please complete the “Willingness to be Interviewed” section below.

Thank you for completing this survey

WILLINGNESS TO BE INTERVIEWED

If you are willing to be interviewed in relation to this survey, please provide your details below. The researcher will contact you with further information in due course.

Title: (Dr. Mr, Mrs, Ms):

Family Name:

First Name:

Company Name:

.....

Telephone Number:

.....

Email Address:

.....

Thank you for your willingness to participate in an interview

A 1.2 Survey Instrument: Industry Managers

A NATIONAL SURVEY OF THE VIEWS OF MANAGERS IN AUSTRALIAN ORGANISATIONS

The role of industry placements for educators in the Australian higher education (HE) and vocational education and training (TAFE/VET) sectors: Building capacities across organisational boundaries.

Definition of certain terms used in this survey

Teachers: Refers to academics in higher education (universities), as well as teachers and trainers in the vocational education (TAFE/VET) sector.

Educational institutions: Refers to universities in the higher education sector, and to technical and further education (TAFE) institutions in the vocational education and training (VET) sector.

Teacher industry placements: A voluntary arrangement whereby the teacher is seconded to an industry host firm for an agreed period of time to gain insights into current industry practices that are relevant to the courses they teach. The teacher undertakes specific tasks agreed to beforehand, to support the work of the host organisation. Teacher industry placements operate as a form of up-skilling and professional development for the teacher, with anticipated mutual benefits for the host firm, the academic institution, the teacher and their students.

SURVEY QUESTIONS

1. **What is your gender?** Male Female
2. **What is your age group?** (Please select from the list below):
 - a. 18-39 yrs
 - b. 40-49 yrs
 - c. 50-59 yrs
 - d. 60+ yrs
3. **How many years have you worked in total?**
(Please specify in the text box below):
 - a. 0-4 yrs
 - b. 5-9 yrs
 - c. 10-19 yrs
 - d. 20+ yrs

4. Please indicate the industry classification of your organisation.

(Select from the following list. This has been derived from the 2006 Australia/New Zealand Standard Industrial Classification (ANZSIC) system):

- a. Agriculture, Forestry and Fishing
- b. Mining
- c. Manufacturing
- d. Electricity, Gas, Water and Waste Services
- e. Construction
- f. Wholesale Trade
- g. Retail Trade
- h. Accommodation and Food Services
- i. Transport, Postal and Warehousing
- j. Information Media and Telecommunications
- k. Financial and Insurance Services
- l. Rental, Hiring and Real Estate Services
- m. Professional, Scientific and Technical Services
- n. Administrative and Support Services
- o. Public Administration and Safety
- p. Education and Training
- q. Health Care and Social Assistance
- r. Arts and Recreation Services
- s. Other Services (please specify below):

5. What products and/or services does your organisation provide?

(Please specify in the text box below):

6. What is the size of your organisation? (Please select ONE from the following list):

- a. A large enterprise
(250 employees or more; turnover exceeding \$70 M Australian dollars)
- b. A medium enterprise
(50-249 employees; turnover not exceeding \$70 M Australian dollars)
- c. A small business
(3-15 employees; turnover not exceeding \$14 M Australian dollars)
- d. A micro enterprise
(1-9 employees; turnover not exceeding \$3 M Australian dollars)

7. What is your current job title? (Please specify in the text box below)

8. How long have you worked in this role?

(Please select from the following list):

- a. 0-4 yrs
- b. 5-9 yrs
- c. 10-19yrs
- d. 20+yrs

9. How many staff report directly to you?

(Please select from the following list):

- a. 1-4
- b. 5-9
- c. 10-19
- d. 20+

10. How many years have you been working with your current employer?

(Please select from the following list):

- a. 0-4 yrs
- b. 5-9 yrs
- c. 10-19 yrs
- d. 20+ yrs

11. What is your highest level of formal educational qualification?

(Please select ONE from the following list):

- a. Secondary school completion
- b. Diploma/Advanced Diploma or equivalent VET qualification
- c. Bachelor degree
- d. Post Graduate Certificate
- e. Post Graduate Diploma
- f. Master (or equivalent Post Graduate) Degree
- g. PhD
- h. Other (Please specify in the text box below):

12. Are you familiar with the concept of teacher industry placement schemes?

Yes No

13. During your working history, have you ever supported a university academic or VET/TAFE teacher in an industry placement arrangement within your own work area?

Yes No

14. What kind of support was provided?

(Please specify in the text box below):

15. The following statements reflect some broadly-based views. Please indicate your level of agreement with each statement below.

(On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

Statements	Ranked Response 1 to 5 (1=Strongly Agree – 5 = Strongly Disagree)				
	1	2	3	4	5
i) Teachers must be equipped with knowledge of current industry practices.					

ii) Teachers should have an understanding of what kinds of skill, knowledge and attitudes are needed in workplaces today.					
iii) Teachers are out of touch with the demands of current workplace practices.					
iv) Graduate recruits are often ill-equipped with the skills, knowledge and attitudes expected by today's employers.					
v) Universities adequately prepare students for the world of work.					
vi) The vocational education and training system adequately prepares students for the world of work.					
vii) Government funded teacher industry placements should be supported by the business community to help build educators' knowledge of current industry practices.					
viii) Corporate funded teacher industry placements should be supported by government measure (e.g. tax breaks) to help build educators' knowledge of current industry practices.					
ix) Educational institutions should promote strategic industry alliances through teacher industry placements.					

16. What do you perceive to be the possible benefits of hosting a teacher industry placement arrangement in your department or organisation?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses 1 to 5 (1 =Strongly Agree – 5 =Strongly Disagree)				
	1	2	3	4	5
i) Time spent in industry would help teachers build their knowledge of current industry practices that are relevant to their fields of teaching.					
ii) Teacher industry placement enables teachers and industry professionals to work together on mutually beneficial projects that may build capacities for the host firm and the educational institution.					
iii) Teacher industry placements may enhance classroom teaching and learning practices.					
iv) Teacher industry placements may provide the host firm with access to a ready pool of graduate recruits.					
v) Teacher industry placements support networking between teachers and industry professionals.					
vi) Teacher industry placements may bring closer forms of co-operation between industry-academia that are mutually beneficial for the parties involved.					
vii) Teacher industry placements are a way to build teachers' knowledge of current workplace practices.					
viii) Teacher industry placements may contribute to curriculum development that better meets the needs of today's workforce.					

ix) Teacher industry placements may build e-learning opportunities between the host firm and education institution.					
x) Teacher industry placements may influence teaching practices to make them more relevant to the current world of work.					
xi) Teacher industry placements may connect classroom learning to the world of work, including teacher knowledge of jobs, career fields, and work opportunities for students.					
xii) Teacher industry placements may lead to mutually beneficial project work between our organisation and the educational institution					

17. Under what circumstances would you agree to host a teacher through an industry placement scheme in your organisation?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) If it gave access to a skilled academic or TAFE/VET teacher to deliver relevant in-house staff training and/or provide other forms of operational/administrative support within my organisation.					
ii) To support academics and/or TAFE/VET teachers who wish to gain insights into some aspects of our business practices that are relevant to their areas of teaching.					
iii) To build organisational knowledge and support workplace learning.					
iv) To engage in mutually beneficial joint project work of value to my organisation and the teacher and/or their academic institution.					
v) To build organisational and individual capacities across organisational boundaries.					
vi) To create beneficial networking opportunities.					

18. What considerations would likely cause the most reluctance to support a teacher industry placement arrangement in your department or organisation?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses From 1 to 5 (1 =Strongly Agree AND 5 =Strongly Disagree)				
	1	2	3	4	5
i) Uncertainty about the outcomes that may be achieved from hosting a teacher industry placement.					
ii) There is no real benefit to be gained for my department or organisation, in hosting a teacher industry placement arrangement.					
iii) Our organisation lacks the resources to support it.					
iv) It would place too much of a burden on our staff.					

19. If you agreed to host a teacher for an industry placement arrangement, what learning opportunities would be made available for the teacher during their time in your firm?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) Job shadowing (e.g. visiting the worksite and observing the work performed by employees).					
ii) Coaching and mentoring by our staff.					
iii) Develop and understanding of our company policies and procedures.					
iv) Skill development (job/task specific; generic/soft/interpersonal; business context specific skills, etc.).					
v) Planning and delivery of relevant work-based on-site training to employees by the teacher.					
vi) Developing work-based online training materials to support the host firm's staff					
vii) Teacher working alone on specific administrative tasks as agreed.					
viii) Teacher working in a team; on projects; and/or working with staff across different departments.					
ix) Teacher supporting HR initiatives. Developing staff training (including online materials); delivering in-house training to					

support staff professional development programs relevant to the needs of our organisation.					
x) Hands on experiences using equipment and technology within the organisation.					

20. If you agreed to host a teacher industry placement arrangement, what degree of workplace participation would be encouraged for a teacher on industry placement, in your department?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) The teacher would have no involvement in workplace decisions.					
ii) The teacher would have some involvement in workplace decisions, depending upon job/task requirements.					
iii) Teacher participation in other areas/work teams would be encouraged.					
iv) Teacher participation in different areas/work teams would be encouraged.					
v) The teacher's subject/discipline knowledge and expertise would be utilised to support our own staff development needs.					

21. If you agreed to host a teacher industry placement arrangement, what measured might be used by your firm to evaluate the effectiveness and outcomes of this activity?

Please specify by indicating your level of agreement with each of the following statements. (On a scale of 1-5 (with 1 = Strongly Agree and 5= Strongly Disagree), please rank your response in the appropriate column beside EACH STATEMENT below):

	Ranked Responses 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) Achieving close alignment between the teachers' skills and aptitudes, and the needs of our organisation.					
ii) Demonstration of adequate pre-planning between our organisation, teacher, and educational institution prior to the commencement of a placement.					
iii) Evidence of clearly established goals and objectives to guide the industry placement arrangement.					
iv) Evidence of the teacher consistently meeting or exceeding our organisation's expectations.					

v) The teacher's timely completion of set work, and to your satisfaction.					
vi) Our organisation meeting or exceeding the teacher's professional development expectations.					
vii) Providing the teacher with access to adequate resources to support the industry placement initiative (e.g. induction; working space; work equipment; staff mentors; etc.).					
viii) Effective participation demonstrated through various forms of engagement and collaboration between the teacher; our organisation, and educational institute.					

22. In your view, should more be done to nurture mutually beneficial alliances between educators and industry, to support workplace learning, build organisational capacities and prepare work-ready graduates?

Yes No

23. Do you see any potential value for your department/or firm in hosting a teacher through an industry placement arrangement?

(Please select ONE (1) from the following list):

Yes Maybe No

24. How long would you be willing to host an academic or vocational teacher on an industry placement in your department /or firm?

(Please select ONE (1) from the following list):

- i) Up to one week continuous full-time
- ii) Up to one month continuous full-time
- iii) Up to six months fractional (part-time)
- iv) Up to six months continuous full-time

25. What resources would your firm be able to make available if you hosted a teacher on an industry placement? (Please indicate with either a 'Yes' or 'No' to EACH of the resources below):

	Yes	No
i) Induction to your organisation		
ii) Designated work area (e.g. desk or workstation)		
iii) Designated Computer with appropriate access rights.		
iv) Staff mentors.		
v) Appropriate access to company policies and procedures.		
vi) Access to other relevant organisational information/resources.		
vii) Security access to the worksite (e.g. ID, security pass/codes etc.).		

26. Which ONE (1) of the following statements do you agree with the most?
- My organisation would be prepared to pay a teacher for their industry placement work
 - My organisation would only consider a free teacher industry placement
27. Have you had any involvement with any tertiary (HE or VET) student through an industry internship?
- Yes
- No
28. Would you be interested in hosting students through an industry internship?
- Yes
- No
29. If there are any additional comments you wish to make, please use the text box below:
30. Please indicate whether you have any objections to the data in this survey being used for other research purposes, AND whether we may contact you again in the future in relation to this type of research. Please note that any information you provide will be subject to the strictest confidentiality and anonymity considerations. Data will be de-identified and only published in aggregate form to prevent individuals and organisations from being identified.
- Yes, you may use my data for future research projects
 - Yes, you may use my data for future research projects and you may contact me again
 - No, you may not use my data for future research projects
 - No, you may not use my data for future research projects and you may not contact me again
31. Are you willing to be interviewed in relation to this survey? (Please indicate by placing a tick in the appropriate box below):
- Yes No

If Yes, please complete the “Willingness to be Interviewed” section below.

Thank you for completing this survey

WILLINGNESS TO BE INTERVIEWED

If you are willing to be interviewed in relation to this survey, please provide your details below. You will be contacted by the researcher in due course.

Title: (Dr. Mr, Mrs, Ms):

Family Name:

First Name:

Company Name:

Telephone Number:

Email Address:

Thank you for your willingness to participate in an interview

Appendix 2

A 2.1. Semi-structured Interview Themes for Managers in HE and VET Institutions

Research Project

Workplaces as sights (sites) for learning: An investigation of the value of industry placements

1. Demographic profiling of interview participant

- Work history/background

2. Participants' knowledge/experience of teacher industry placement schemes

- Have you ever heard about teacher industry placements?
- Has there ever been a time when you've been asked to support a teacher industry placement arrangement? If yes:
 - Was the industry placement encouraged or discouraged?
 - What was the nature of the industry placement?
 - What were the drivers for the industry placement?
 - Who set it up? What were the administrative arrangements? What was your level of involvement in the arrangements?
 - What resources and kinds of support were given to the teacher(s) concerned?
 - What were the consequences of the industry placement?
 - Was the teacher's profile enhanced as a result of participating in an industry placement?
 - Has there been any form of promotion or encouragement of teacher industry placements to other teachers across your faculty/school/department?
 - Has there been any evidence of curriculum development as a result of teacher participation in industry placements?
 - More industry relevance in teaching and learning practices?
 - More collaborative forms of engagement between your faculty/school/department and the host firm? Examples?

3. Industry knowledge/skills needed by teachers in your area, to support their vocational currency and address employers' demands for work-ready graduates

- What are your thoughts about teachers' spending time in industry as a form of professional development to maintain their industry currency?
- What type of knowledge and skills do you believe teachers should possess to prepare students to enter the workforce?

- Thinking about the teaching staff within your department, could you please share your views regarding the level of knowledge they have about today's industry practices relevant to the disciplines they teach? In other words, how current would you say is their knowledge and understanding of industry practices and employer expectations?
- In what ways could teacher industry placements be an effective form of professional development for the individuals who participate in such schemes?
- There is a view that teacher industry placements can help bridge a gap between curriculum content and current industry practices. What are your thoughts on this?
- Some argue that teachers who participate in industry placements can support training and professional development initiatives that will also benefit host firm staff. What are your views about this?
- What do you believe teachers will gain from an industry placement?

4. The challenges of implementing, evaluating and supporting teacher industry placement arrangements

- What do you believe are some of the barriers/constraints of teacher industry placement schemes?
 - The challenges of implementing TPI initiatives?
 - The challenges of supporting them?
 - Other?

5. Evaluation of teacher industry placement outcomes – how can we know they meet individual and organisational goals?

- What kind of performance indicators do you believe can be used to measure the outcomes of teacher industry placements?

A 2.2. Semi-structured Interview Themes for Industry Managers

Research Project

Workplaces as sights (sites) for learning: An investigation of the value of industry placements

1. Participant background

- Your profile/ working trajectory; current role; years working in industry; qualifications, etc.
- What led to where you are now?

2. Participant's knowledge/experience of teacher industry placement schemes

- Have you ever heard about teacher industry placements?
- Has there ever been a time when you've been asked to support a teacher industry placement arrangement? If yes:
- Was the industry placement encouraged or discouraged?
- What was the nature of the industry placement?
- What were the drivers for the industry placement?
- Who set it up? What were the administrative arrangements? What was your level of involvement in the arrangements?
- What resources and kinds of support were given to the teacher(s) concerned?
- What were the consequences of the industry placement?
- Has there been any evidence of ongoing collaboration between your department/firm and the teacher or their academic institution as a result of your organisation having participated in an industry placement? Examples?

3. Industry knowledge/skills needed by teachers in your area to support their vocational currency and address employer demands for work-ready graduates

- What type of knowledge and skills do you believe teachers should possess to prepare students to enter the workforce?
- Thinking about the qualities and capabilities of new graduates who have joined your workforce, what are your thoughts about their level of preparedness for the jobs they are expected to perform, and the extent to which they meet the needs and expectations of your firm?
- What are your thoughts about teachers' spending time in industry as a form of professional development to maintain their industry currency?
- There is a view that teacher industry placements can help bridge the gap between vocational teaching and learning, and current industry practices. What are your thoughts on this?

- Some argue that teachers who participate in industry placements can support training and professional development initiatives that will also benefit host firm staff. What are your views about this? Are there any particular examples of HRD projects/or staff training needs in your firm, that could be supported by a teacher being hosted through an industry placement arrangement with you?
- In what ways might teacher industry placements be an effective form of professional development for the individuals who participate in them?
- How should teacher industry placements be arranged in order to achieve the best possible outcomes for those whom it seeks to serve (that is, the host firm, the teacher, their students, the host firm, and the educational institution)?

4. The challenges of implementing and supporting teacher industry placement arrangements

- What do you believe are some of the barriers/constraints of teacher industry placement schemes?
- The challenges of implementing them?
- The challenges of supporting them?

5. Evaluation of teacher industry placement outcomes – how can we know they meet individual and organisational goals?

- What kind of performance indicators do you believe can be used to measure the outcomes of teacher industry placements?
- Teacher's or academic institution's continuing links with the host organisation?
- Ongoing involvement in joint projects between your organisation and the academic institution?
- Recognition of the teachers' expertise – by whom?
- Teachers' profile in host organisation and academic or TAFE institution?
- Achievement of agreed goals/objectives?
- Other?

Appendix 3

3.1 Semi-Structured Interview Pro-Forma

Research Project

Workplaces as sights (sites) for learning: An investigation of the value of industry placements

Date:

Participant Name:

Pseudonym:

Sector: HE

VET

Industry

Audio / Folder No:

Time Commenced:

Time Ended:

Location:

Comments:

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Appendix 4

4.1 Consent Form



CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a national study entitled: *Workplaces as sights (sites) for learning: An investigation of the value of industry placements*.

This project aims to gather data about the factors that may influence workplace learning through industry placement schemes for teachers who work in the higher education (HE) and vocational education and training (TAFE/VET) sectors. The study will assess the views of managers working within Australian organisations and their counterparts in universities and TAFE institutions, about the opportunities and challenges of hosting/implementing teacher industry placements. Through this study, it is anticipated that a framework will be developed to support industry placement policy and practices, and contribute to mutually beneficial partnerships that build individual and organisational capacities across these sectors.

There are no risks to you from participating in this project beyond normal inconvenience. No sensitive personal or commercial data is being sought, and all data will be treated with the utmost confidentiality and not be disclosed to third parties.

CERTIFICATION BY PARTICIPANT

I,

of

certify that I am at least 18 years old, and that I am voluntarily giving my consent to participate in the study: *Workplaces as sites (sights) for learning: An investigation of the value of industry placements*, being conducted at Victoria University by Dr. Margaret Malloch (Chief Investigator).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by the researcher: Ms. Annamarie Schüller and that I freely consent to participation involving the procedures mentioned below:

- Participation at a semi-structured interview.
 - I give consent to the interview being audio-taped
 - I do not give consent to the interview being audio-taped.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Any queries about your participation in this project may be directed to the researcher:
Ms. Annamarie Schüller, College of Education, Victoria University.
Email: Annamarie.schuller@live.vu.edu.au or phone 9919 4000;

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, O Box 14428, Melbourne, VIC, 8001. Email: Researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

Appendix 5

Quantitative Analysis Coding Example

The coding process was done in two phases. The first phase involved an analysis of the questions from the surveys in order to group these into specific clusters. The second phase was aggregating the different categories of respondents for the education sector (HE and VET), and enterprise size for private firms.

Phase 1: Survey question coding example

Selected responses to group into clusters are highlighted in yellow from HE and VET managers' survey questions 23 and 25 below. (Please note that the same approach was used to cluster responses from the industry managers' survey).

Q23. Please indicate the degree to which the following general statement may negatively influence your support for a teacher industry placement arrangement.

On a scale of 1-5 (*with 1 being Strongly Agree and 5 being Strongly Disagree*), please rank your response in the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) I am unfamiliar with such arrangements.					
ii) Teacher industry placements are unlikely to result in the kind of teacher professional development outcomes that would add value to the teaching programs or benefit our department.					
iii) We lack the resources to support it.					
iv) The disruption it would cause in terms of back-filling teacher positions makes it difficult to support.					
v) It would complicate teacher timetabling and staffing arrangements.					
vi) It would be too difficult for my department to accommodate it.					
vii) The outcomes of teacher industry placements are too vague, with no real returns on the investment of resources that are needed to accommodate it.					
viii) There is no value in it for the host organisation, the teacher, students, or the educational institution.					
ix) It is too difficult to identify a suitable host organisation that is willing to support it.					
x) Businesses are unlikely to support it.					

Q25. Which of the following measures might be used by your institution for evaluating the effectiveness and outcomes of a teacher industry placement arrangement?

On a scale of 1-5 (*with 1 being Strongly Agree and 5 being Strongly Disagree*), please rank your response in the appropriate column beside EACH STATEMENT in the table below:

	Ranked Responses From 1 to 5 (1 =Strongly Agree - 5 =Strongly Disagree)				
	1	2	3	4	5
i) Achieving close alignment between the teachers' skills and aptitudes and the needs of our organisation.					
ii) Demonstration of adequate pre-planning between, our institution, the teacher, and host organisation prior to the commencement of the placement.					
iii) Evidence of clearly established goals and objectives to guide the industry placement arrangement.					
iv) Evidence of the teacher consistently meeting or exceeding our organisation's expectations.					
v) The teacher's timely completion of set work, and to industry standards.					
vi) The host organisation meeting or exceeding the teacher's professional development expectations.					
vii) The teacher having access to adequate resources to support the industry placement initiative (e.g. induction; working space; work equipment; staff mentors; etc.).					
viii) Effective participation demonstrated through various forms of engagement and collaboration between the teacher; our institution and the host organisation.					

Phase 2: Survey question coding example

Responses were segregated by sector: HE (public, dual sector and private universities combined), and VET (TAFE and private RTOs combined).

The frequency of responses were combined as shown in the table below:

Strongly Agree and Agree = **A**

Neither Agree nor Disagree = **N**

Strongly Agree and Disagree = **D**

Each category from each sector was aggregated and percentages calculated against each sector's frequencies, adding to 100% for each of the HE and VET sectors. This process was consistently repeated for the remaining tables as applicable.

Please note that the same approach was taken for the industry managers' survey responses, the only difference being that whilst the educational institution responses were classified by sector (HE or VET), the industry manager responses were classified by enterprise size: Small; Medium; or Large.

Q23 (7) Responses – sorted by category (A, N, D)

Sector			Frequency	A	N	D	Total
Dual sector university (combined university/TAFE organisation)	Valid	Disagree	1			2	
		Strongly Disagree	1				
		Total	2				
	Missing	1					
Total			3				
Private university	Valid	Strongly Agree	1	1		1	
		Strongly Disagree	1				
		Total	2				
	Missing	3					
Total			5				
Public university	Valid	Agree	4	10	16	17	
		Disagree	15				
		Neither Agree nor Disagree	16				
		Strongly Agree	6				
		Strongly Disagree	2				
		Total	43				
	Missing	9					
Total			52				
HE Sector Totals (%)				11 (23%)	16 (34%)	20 (43%)	47 (100%)
TAFE (VET) institution	Valid	Agree	1	5	8	6	
		Disagree	2				
		Neither Agree nor Disagree	4				
		Strongly Agree	2				
		Strongly Disagree	2				
		Total	11				
Other. Please specify below.	Valid	Disagree	1				
Private Registered Training Organisation (RTO)	Valid	Neither Agree nor Disagree	4				
		Strongly Agree	2				
		Strongly Disagree	1				
		Total	7				
VET Sector Totals (%)				5 (26%)	8 (42%)	6 (32%)	19 (100%)

Final Table as inserted in the thesis

Statement	Education Sector							
	HE				VET			
	A (%)	N (%)	D (%)	Total	A (%)	N (%)	D (%)	Total
Evaluation of TPI activities								
1. The outcomes of teacher industry placements are too vague. There is no real return on the investment of resources that are needed to accommodate it Q 23 (7)	11 (23%)	16 (34%)	20 (43%)	47 (100%)	5 (26%)	8 (42%)	6 (32%)	19 (100%)
2. Evidence of the teacher consistently meeting or exceeding our organisation's expectations Q 25 (4)	29 (62%)	13 (28%)	5 (11%)	47 (100%)	16 (84%)	3 (16%)	0 (0%)	19 (100%)
3. The teacher's timely completion of set work, and to industry standards Q 25 (5)	30 (64%)	13 (28%)	4 (9%)	47 (100%)	12 (63%)	4 (21%)	3 (16%)	19 (100%)
4. The host organisation meeting or exceeding the teacher's professional development expectations Q 25 (6)	29 (62%)	15 (32%)	3 (6%)	47 (100%)	18 (95%)	1 (5%)	0 (0%)	19 (100%)
5. Effective participation demonstrated through various forms of engagement and collaboration between the teacher, our institution, and the host organisation Q 25 (8)	33 (70%)	10 (21%)	4 (9%)	47 (100%)	5 (26%)	2 (11%)	12 (63%)	19 (100%)

Qualitative Data Analysis Process Example

Semi-structured Interview Transcript Analysis

Subsidiary research question No. 5: How might we know that TPI meets individual and organisational goals?

- How can we know that teacher industry placement outcomes have met individual/departmental/or organisational goals?
- What are some ways of evaluating the effectiveness of teacher industry placement schemes for your organisation/department?

* Pseudonym used

Transcript Excerpt	
<p style="text-align: center;">Cheryl* - HE Manager</p> <p>“It would be like ... a secondment of a couple of my staff to ... get involved in those industry-based projects, and I would think 6 months would be a minimum, you know, that’s research-based,... tangible outcomes would be the research that was written while they were seconded. So, for instance, if um, staff went somewhere into the [organisation] with a demand-driven problem ... [to work on]. I think an organisation would have to have a tangible project because it’s no good an academic going down and doing mundane work, so their skill-set is think, being able to think, do research and solve problems. So, I think in order to get the most for the organisation and for the academic, there would have to be something tangible, some question that needs solving, or some project to work on ... people who are doing research that’s relevant to industry then there should be tangible outcomes. They should be able to write a report; um, they should be able to be interviewed by the media on what they got out of that; they should be able to comment on [aspects of] financing, in that particular example; so, there should be some quantifiable outcomes in that sense. Um, maybe the institution could ask the teacher to write up case-studies from their experience to be used in classes, um, so that other people could use them too. Or that perhaps if they did write up a case-study in the department, we could have ... seminars, they could ... like lunch seminars ... so someone talks about their research in the session. But then if they shared that case-study with other academics, other academics would use that example in their class, so it’s building resources. I can’t think of any other way, but I’m sure there’s lots, cause there is a cost-benefit analysis isn’t there. Its hugely costly to cover someone going out into industry so there has to be some benefits. Actually, sometimes talking about these sorts of things is good ... too because it makes you think about the issues...”</p>	
Key Themes	Links to literature and theoretical framework
<p>TPI timeframe; tangible research projects; mutually beneficial, industry relevant; alignment to educator’s skills-set; quantifiable, concrete, outcomes-based research; other outcomes: post-placement activities (curriculum enhancement; case-study/ resource development; seminars); costs vs benefits; funding issues; managing strategically.</p>	<p>Situated learning – CoP - mutual engagement, shared repertoire of knowledge across joint enterprises Boundary spanning Activity theory – subject-object/ive-outcomes based activity, and its constituent elements Knowledge work - dialogical Challenges of TPI – funding – resource intensive Strategic management</p>