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Uncovering the practices of continuous improvement in local government

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Abstract - Uncovering the practices of CI in local government

Continuous improvement (CI) is an important methodology adopted by the public sector, including local government, to drive process efficiencies and outcome effectiveness, often in response to financial pressures and increased customer demands driven by both state and federal governments (Burgess & Radnor 2012; Pedersen 2011; Radnor, Z. 2010; Rashman & Radnor 2005; Suarez Barraza et al. 2009). Moreover, the adoption of neoliberal policies to drive such imperatives has resulted in CI being enacted in ways that are often removed from the practice traditions presented by the early quality theorists of Crosby, Juran, Deming and Imai. The decontextualised approach to CI has seen the implementation of a range of quality frameworks, such as Australian Business Excellence or Lean Thinking, being implemented. The introduction and adoption of such frameworks has often been met with cynicism and caution by both CI practitioners and staff, as organisations have not always achieved the sought after gains frequently promised. For local government, CI practices have come to mean the application of a narrow range of tools. Most recently, the traditions, practices and frameworks which have been the foci on improvement have shifted to see the implementation of yet a new framework, which in the context of NSW local government has come to be known as service reviews (see for example: Pepper et al. 2021; University of Technology 2020, 2021) as the gold standard that has worked to reconfigure how CI is enacted within the NSW local government.

This research explores ways in which, for NSW local government contexts, the fundamental activity and CI practice of problem definition could be reconfigured in ways which bring it closer to practice traditions of seminal theorists such as Deming and Imai. In this thesis the literatures of action learning sets (Anderson and Thorpe 2004; Bird and Duffy 2021; Norman 2016) and CI are brought together to foreground problem definition statements, action and critical reflection and the essential nature of these in the day-to-day enactment of CI practice within NSW local government (see for example Crosby 1989; Deming 1986; Ghobadian and Speller 1994; Imai 1986; Juran 1995). Through the introduction of action learning set practices at a number of NSW local government sites, this research has foregrounded the relational complexity of CI that enacted neoliberalist policies have ignored. In bringing workers together to enact practices of problem definition, action and reflection, the Action Learning Sets (ALS) have emerged as sites where it is possible to reinstate or indeed reinvigorate the lost practice traditions of CI.

Contributions

Applying the Theory of Practice Architectures (TPA) to CI practices is a novel theoretical approach applied to local government that may shed light on how CI practitioner and worker practices are shaped by localised conditions. Moreover, the lens of TPA provides an alternative theoretical stance to

understand learning in the context of both the practitioner and workers. Further, TPA offers a new lens to view individual and organisational practices and offer these up for closer examination, explanation and interpretation. This is an important contribution to the CI literature where traditionally an individualist paradigm has been used to examine phenomena. Previously action learning sets have not been discussed in terms of trellising ongoing learning and emergent practices notable of CI. This research now enables action learning sets to be discussed as a further framework of CI.

Additional contributions

This thesis brings together two disparate literatures – that of Theory of Practice Architectures (TPA) and continuous improvement (CI) - that have not previously been discussed in tandem. The conjunction of these two theoretical frames in this thesis extends the breadth and reach of TPA into additional disciplines of business: CI and quality management. The lens of TPA has shone a light on the contradictions resultant from neoliberal policies that have driven individualistic behaviours that have organisational policies and practices that restrict collaboration and reinforce the position of organisation silos. Moreover, the lens of TPA has surfaced the essential role of critical reflective practice in the sustainability of CI in NSW local government.

Keywords

Continuous improvement; quality; quality management, continuous improvement, continuous improvement frameworks; service reviews; Theory of Practice Architectures; local government; action learning sets.

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Certification

I, Janelle Margaret Davidson, declare that this thesis submitted in fulfilment of the requirements for the conferral of the degree Doctor of Philosophy, from the University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. This document has not been submitted for qualifications at any other academic institution.

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Janelle Margaret Davidson
5 August 2022

List of Names or Abbreviations

Action Learning Sets	ALS
Theory of Practice Architectures	TPA
Plan, Do, Study, Act	PDSA
Continuous improvement	CI
Define, measure, analyse, improve, control	DMAIC
Lean Six Sigma	LSS
Lean Thinking	LT
Organisation learning	OL
Toyota Production System	TPS

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Chapter 1 Introduction

This initial chapter serves as the introduction to this thesis. This thesis has been written in the context of a practitioner/researcher in the unique public sector environment of NSW local government. The research undertaken draws together literature of continuous improvement (CI) and conditions of practice of CI practitioners and workers that is described and analysed through the lens of the Theory of Practice Architectures (TPA). Bringing these elements together enables a critical discussion on possible new ways for CI to be approached and an examination of the constituents of learning as they are characterised by workers in their situated enactment of CI practices. In the following section I will outline the research questions investigated in this thesis. Following this, I will discuss how this research emerged from my own work as a CI practitioner working across government and non-government workplaces. Finally, in the chapter summary I identify the key points of this chapter.

This research aims to examine the prevailing practices of CI in local government in New South Wales, Australia. It seeks to explore the sustainability of CI by exploring the conditions in which CI practices are embedded and the architectures that enable and constrain these. How do these existing CI practices unfold and contribute to the ongoing development of both practitioner and worker alike? Is it possible to reconceptualise CI as it is enacted in local government? In commencing this chapter, it is necessary to ground the key terms of 'continuous' and 'improvement' in the broader CI literature.

The terms continuous improvement and continual improvement are often used interchangeably in literature (American Society for Quality 2020). Reber (2019) has recognised the difference in meanings in the terms and offers that continual improvement implies some breaks in time, whereas continuous does not. However, there remain many recognised definitions of continuous improvement and as such it is positioned as a contested concept in the CI literature - see for example: Brits (2018); Prakash (2018). What remains common to the understanding of CI is the premise that this work is undertaken on an ongoing basis with a view to improving work performance (Hough et al. 2017). This research reconsiders CI viewed through the lens of TPA. The use of TPA facilitates a narrative that demonstrates the existence of episodic, decontextualised enactment of improvement practices. The generation of a new narrative of CI as enacted in NSW local government enables the reconceptualisation of how, in changing the existing episodic/decontextualised approach, a shift is enabled that opens up the way forward for CI practices to be enacted. When practices of CI are enacted in an open ended and flowing manner represents the practice traditions of CI.

Continuous improvement as an approach was founded by Deming, Juran and Crosby (Raafat & Jamal 2016). Each of these pioneering theorists offer scholars, theorists and management a body of knowledge that is inclusive of similar and also differing approaches (Oakland 2014). Moreover, the work of Deming, Juran and Crosby is the DNA of all CI approaches, methodologies and monikers. Including a narrative that traces the development of CI enables practitioners and scholars alike to reflect upon the enactment of

improvement, be it as a step-change recognised as 'continual' improvement, or ongoing improvements referred to as 'continuous' improvement.

Episodic acts of CI have been engaged in by local government in response to both the State and Federal governments' drive for creating greater public value (Pepper et al. 2022). Some reforms have been prescribed such as compulsory competitive tendering (Jones 2002). Others have been triggered in response to financial difficulties and an increasingly complex operating environment experienced by many local government areas (Pepper et al. 2022). The journey of reform has a long history in local government (Tran & Dollery 2022). For example since 2002 NSW local governments have adopted legislated initiatives such as 'Fit for the Future' and 'Best Value' in attempts to drive down operating costs of NSW local government (Arnaboldi & Lapsley 2008; IPART 2015; Jones 2002). In this increasingly tense operating environment NSW local government has sought to improve efficiency, effectiveness and responsiveness that has seen many NSW local governments turning to the implementation of quality frameworks to aid in the pursuit of these objectives (Pepper et al. 2022). Embedded in these frameworks are the principles of Total Quality Management (Oakland 2014). Total Quality Management is recognised as a system that involves all employees in continual improvement. It uses strategy, data and effective communication to integrate the principles of quality into the culture and activities of the organisation (American Society for Quality 2021).

The implementation of quality frameworks has been undertaken in an episodic, memetic and mechanistic manner with few NSW local government organisations able to sustain the use of a specific framework. This is recognised as "backsliding" (Hung et al. 2019, p. 15). Historically this has resulted in numerous frameworks being adopted across the NSW local government sector (Price et al. 2018). In the last two decades this unsustainability of CI has been investigated by a number of scholars, many of whom have adopted differing ontological approaches - see for example Enquist et al. (2015); DeSanctis et al. (2018) - who discuss an individualist ontological approach to CI, or Bateman and Rich (2003) who use a process ontology. In so doing, a number of factors that drive and restrain CI in an organisation have been recorded. The outcomes of such research is presented as residing in one of two organisational paradigms, the mechanistic and the organic paradigms. Brown (2014) has recognised how the mechanistic paradigm characterises CI as a top-down approach that is compliance driven. Such an approach places an emphasis on leaders as sovereign individuals and their personal attributes that leaves little room for the consideration of the contextual conditions at play when introducing change. In contrast, the organic paradigm as described by Burrell and Morgan (1979) and Fisher (2000) recognises worker agency and empowerment where innovation is driven from a values basis. Employing a practice-informed focus challenges the dichotomy of the mechanistic/organic paradigms. The TPA contends that "practices are not shaped solely by the intentional action and practice knowledge of participants but also by circumstances and conditions that are '*external*' to them" (Kemmis et al. 2012, p. 34). This research adopts an alternative site ontology and theoretical lens in the study of CI as it is enacted in local government. Kemmis et al. (2012) discuss the notion of site as the place where practices coexist in an ecological relationship with one another as Ecologies of Practices. In this research I argue that to ensure a

continuous flow of improvement it is necessary to transform the existing cultural-discursive, material-economic and social-political arrangements that work to prefigure the conditions for CI practices.

As identified in this research, the current CI literature (informed by, for example, Rodgers et al. 2019; Sony et al. 2021; Sreedharan et al. 2017) does not focus on examining the social and relational context in which CI activities are undertaken, as the scholars adopt a positivist, empirical or individualist ontology. In doing so, the predominate literature ignores how social and relational elements impact on the *continuous* acts of improvement, *how* workers are engaging *in these acts* and fails to examine how these come together in local practices at specific sites. This normative approach to reconceptualising CI has resulted in calls for a human-centred approach to be considered in light of CI. Literature has recognised this phenomena to exist for a significant time. Scholars such as Ali and Johl (2021); Clegg and Boardman (1996); Korsaa et al. (2013); Radnor (2010b) have researched the introduction of various CI practices across a range of industries and have recommended greater involvement of workers from all areas of the organisation to be involved in the design and integration of proposed new processes and changes to the business. To suumarise despite these calls and adoption of worker involvement CI has struggled to thrive and is often time is abandoned awaiting the arrival another approach to drive improvement goals. While considerable research has been undertaken in the field of CI it continues to be undertaken and represented within a limited ontological standpoint.

To explore these ideas, the research adopts the TPA as discussed by Kemmis and colleagues (see for example Kemmis et al 2012; Kemmis and Grootenboer 2008 and Kemmis et al. 2014). Adopting the TPA recognises that practices are more than what workers do in undertaking their role in the organisation. Rather, the practice lens enables the critical interrogation of "[…] current practices, what these are composed of and how these practices shape and are shaped by the arrangements in which they are enmeshed in a site of practice" (Mahon et al. 2016b, p. 7).

The guiding principle underpinning this research is that CI is an inherently social learning arrangement undertaken in the cultural and material dispositions of the organisation. For example, Kaizen posits that a CI methodology calls for teamwork, provision of constant feedback to workers and for the promoting of personal development for workers (Garcia et al. 2014). Recognised within the work of Deming - see for example Breja et al. (2016); Chiarini (2011); Deming (1986; 1994) and Langbert (2000) - there is an emphasis on a need for top management to create the internal conditions necessary to reduce inequity in the workplace and create the space for an employee perspective to be integrated into management decision making and work processes. Literature has recorded how in creating these conditions, organisations have attained success in their pursuit of CI (Langbert 2000; Zu & Fredendall 2009; Zu et al. 2009). Awards constitute CI success and there are many on offer, such as the Deming Prize and the Malcolm Baldrige National Quality Award (Breja et al. 2016; Tan et al. 2003). It is the manner in which an organisation chooses to reproduce these internal conditions that together work to constrain and/or enable what is relevant or appropriate to say, think and do. The use of the TPA enables a critical

examination of these internal conditions that has in turn enabled a collective of CI practices to be 'designed'. This has seen some NSW local governments winning awards and yet unable to sustain these gains in the longer term. In attempting to research these 'designed' practices, TPA brings together the critical examination of CI practices that necessitates the foregrounding of praxis as something shaped by intention, social context and tradition (Kemmis & Smith 2008b). When praxis is absent, what is left is rule following, and while this is not inappropriate it does work to limit the critical reflection Kemmis and Smith (2008b) that is at the very core of the practice tradition of CI. The application of the TPA with its recognition of practices consisting of sayings, doings and relatings to the ways CI is enacted in NSW local government is a resource for enabling CI practices that are inclusive, productive, justifiable, sustainable and satisfying to all practitioners and workers and representative of praxis.

The remainder of this introductory chapter is organised into four sections. The first section presents the context of the study and provides a brief introduction on CI and how it is currently enacted in NSW local government. The second section outlines the current research limitations in the CI and NSW local government literatures. The third section presents the research aim, research questions and significance of the research. The final section provides an overview of the forthcoming chapters.

Study background

Quality is an important competitive factor and that is why an increasing number of organisations are implementing it (see for example, public sector: Antony et al. 2017, Antony, Rodgers, et al. 2016; higher education: Balzer et al. 2016, Haerizadeh and Sunder 2018; healthcare: Garcia 2014, Henrique and Filho 2018). For the public sector, quality is determined by the community it serves. A competitive edge exists where the provision of services and amenities are provided at an acceptable level and cost that meets the needs of the community (Rashman & Radnor 2005; Sheffield & Coleshill 2001). The field of quality is dominated by a number of scholars, the early contributors recognised as Deming, Juran, and Crosby. Others, including Feigenbaum, Taguchi, Ishikawa, Imai and Shingo have all contributed significantly to the body of knowledge that has given rise to the development of the variety of CI methods operating globally today (Dahlgaard-Park et al. 2018). While each of the aforementioned scholars are recognised for their individual contribution to the literature, these contributions encompass both a differing focus as well as areas of overlap. Areas of difference include: the use of measurement; goal setting; definitions of quality; supplier relationships; leadership activities; training, and views on quality improvement (Ghobadian & Speller 1994). The common overlaps include: a consistent forward movement towards improvement; usage data to make decisions; inclusive of all staff in improvement; the recognition of social learning methods; the belief that improvement requires leadership and is productive (through the removal of organisational silos) (Chiarini 2011).

While areas of commonality do exist between theoretical standpoints, the definition of CI is contested (Bhuiyan & Bhaghel 2005; Corkill & Atlay 2015). This has resulted in the interchange of the terms

'continuous improvement' and 'continual improvement'. Early in the implementation of various approaches to quality, continuous improvement referred to the organisation undertaking ongoing activities of improvement, whereas continual improvement recognised improvement activities are undertaken with breaks in between. The American Society for Quality (2020) recognises both terms have now come to represent efforts to improve workplace efficiency through the reduction of waste. Ohno (1988) has described waste as resulting from one of three areas: wasteful activities that bring no value to the customer; overburden in conducting unnecessary work, and inconsistency in results. The distribution of quality approaches has seen the concept shift from being enacted as a narrow, mechanistic approach and an operations-based discipline to one that has widening appeal to corporations through the adoption of an organic paradigm.

The term New Public Management (NPM) is the popularised label for public sector reform (Reiter & Klenk 2019). It is characterised by a strong focus on output and efficiency. The adoption of NPM has been discussed in literature as operating globally in countries including the United Kingdom, United States of America, Canada and New Zealand (Bryson et al. 2014; Schubert 2009; Siltala 2013). The Australian federal government has also joined the list of those countries adopting NPM policy. Consequently, downward pressure has been applied to state and NSW local governments. Accordingly, leading to a shift in how NSW local government is able to allocate scarce resources to meet competing demands (Australian Local Government Association 2010, 2016). In response, NSW local government has turned to a variety of quality frameworks to assist with reducing waste and improving efficiencies (Artist 2010; Price et al. 2018). To assist with the implementation of these frameworks, NSW local government has sought assistance from external consultants (Artist 2010). This approach is not unique to the Australian context. A similar response to the adoption of NPM has also recorded a trend adopted by local authorities and the National Health Service in the United Kingdom of engaging consultants for the purposes of facilitating the implementation of a CI initiative. Management knowledge has been codified and abstracted by consulting firms which they go on to present as forward-thinking solutions to organisational problems. These solutions are said to promise improvements in performance (Clark & Greatbatch 2004; Heusinkveld & Visscher 2012). In response, organisations have noted that the approach deployed by consultants was one of rigidity that did not necessarily suit the environment or provide the outcomes desired (Benders et al. 1998; Cerruti et al. 2019; Heusinkveld & Benders 2005). No clear advantage was identified to have arisen from the use of consultants and, perhaps more importantly, feelings of negativity were recorded (Cano et al. 2017). In other words, the expenditure of scarce budget resources on the use of consultants and their rigid, mechanistic approach to CI is an investment in the achievement of improvement; however, this is not always realised in cost savings or the longevity of the approach designed by consultancy firms.

The prevailing theme of management responsibility to establish an organisational culture of CI has been well documented since the early theorists gained popularity through their individual approaches to improvement. According to Deming, Crosby and Juran, top management have the responsibility for ensuring the sustainability of CI (Crosby 1989; Deming 1986, 1994; Juran & Godfrey 1998; Nielsen

2004; Stephens & Juran 2004). Included in their individual contributions each of the theorists outlined the key touch points to guide the development of an implementation and maintenance roadmap for CI implementation in an organisation. Deming (1986) identified 14 points for upper management to adopt in order to transform American industry. These 14 points emphasize a company's commitment to workers as they embark on a journey of change. Crosby identified a 14-step approach for his quality improvement process that he saw as the responsibility of top management (Dale et al. 2001; Zairi 2013). Crosby's work highlighted the necessity for organisation behavioural and attitudinal change. Juran proposed a strategic and structured approach to quality. He identified 10 points necessary for breakthrough levels of performance (Stephens & Juran 2004). Juran's approach shifted the thinking of problems as something for managers to solve to become projects for teams of workers to analyse and find solutions. The theme of 'continuous' improvement that was clearly stated by the early theorists remains relevant today. When organisations ignore the 'continuous' elements of CI they strip away opportunities for learning new practices and importantly the teleo-affective nature of CI that is the motivation and drive for continuous improvement that results in decontextualised enactment ultimately undertaken in an episodic or 'continual' way.

Netland (2016), Rockart (1978) and Trkman (2010) describe critical success factors (CSF) of CI programs as the performance factors that upper management must pay attention to. The continued interest and discussion of CSF remains a constant in the CI literature (see for example: Alazmi & Zairi 2003; Antony et al. 2019; Cano et al 2017; Fryer et al. 2007; Sony et al. 2021; Sunder & Prashar 2020). The continued interest in CSFs has arisen as attempts to implement an ongoing CI methodology has fallen short. The challenges to the sustainability of CI have long been recognised in the literature (see for example Bateman 2005, Alvarado-Ramirez et al. 2018, Flor Ballejo et al. 2020, Idris and Zairi 2006, Jurburg et al. 2017 and Sony et al 2021). The work of scholars over the past two decades has identified a range of critical success factors and individualistic approaches for managers to consider in the development, implementation and maintenance of their chosen CI strategy that has led to a growing acknowledgement of contextual factors. Despite these CSFs having their roots in the historical works of Deming, Juran and Crosby, sustainable CI remains elusive to many organisations. To adopt a lens of TPA challenges the economic rationalism, means-end approaches in much of the discussion of CSF.

The development of strategy for improving organisational performance and results has seen many organisations try and fall short of expectations O'Brien (2022), often at a significant cost . In researching these attempts to achieve a sustainable CI approach scholars have noted there are many challenges to be overcome. Firstly, the data for the identification of CSF is sourced from organisations that have already achieved a level of success as determined by the winning of one of the award schemes. The proliferation of quality awards such as The Deming Prize (Breja et al. 2016) and the Australian Business Excellence Framework (Pattison 2011) are said to elevate quality to a strategic level that has seen around 61 awards operating globally (Lasrado 2018). This becomes problematic if award criteria are discussed as a 'to do list' and assessment tool (Zairi & Alsughayir 2011). Oakland and Tanner (2008) express concern over the developing phenomenon of foregrounding the fulfilling of award criteria by an organisation that then

results in the award model criteria becoming a pseudo business goal. Furthermore, Oakland and Tanner (2008) aver that award criteria encourage evaluation *against* a standard rather than evaluation *of the* standard that results in compliance rather than a deep embeddedness of the principles. In respect of the Australian context, research by Price et al. (2018) highlights that in using the Australian Business Excellence Framework, local government has adopted a number of tools and practices that have been enacted in a decontextualised manner. Zairi and Alsughayir (2011) argue for a contextualised approach to the implementation of quality frameworks. The authors consider attention be given to the unique organisational and cultural context that act as pre-requisites for success.

In sum, the prevailing literature suggests that the tensions between implementation and sustainability of quality frameworks inside organisations can be minimized when the organisational context and conditions of practice are afforded the opportunity to be examined and understood. Implementing and sustaining a 'continuous' flow of CI is complex and numerous scholars have made contributions in attempting to understand this issue.

Limitations of current literature

This study highlights limitations in the current literature. As previously stated, the current literature focuses on the implementation of a range of frameworks and how these may be sustained. However, there are a number of limitations to such foci. The first limitation is a lack of focus on worker practices and how these are enacted. This approach excludes examination of the relationship of interdependence between worker, practice and site arrangements. Secondly there is little evidence in the literature that reflects how the phenomenon of CI is enacted through everyday worker interactions. This lack of clear evidence may be muddied by a proliferation of consultants publishing through various avenues and conferences that are intended to attract the attention of management (Heusinkveld & Visscher 2012).

The examination and description of workers enacting CI practices is deeply rooted in the historical trends in the philosophy of science, starting with positivism, expanding into empiricism and then leading to post-positivism (Meredith et al. 1989). Continuous improvement and the pursuit of quality is considered to be fundamentally a scientific view of work (Luburic 2014). This can be seen through the work of Frederick Winslow Taylor from the early 20th century, who is recognised as one of the first to adopt scientific methods to rationalise and increase productivity of the labour force (Urick et al. 2017; Warner 1994). Taylor considered the worker to be akin to a machine where output could be optimized through efficiency drives (Taneja et al. 2011). Taylorism and his mechanistic paradigm assume the world can be completely understood and that such understanding can be obtained through analysis (Gharajedaghi & Ackoff 1984). This earliest application of science to work methods by engineers and technologists has continued to perfect and sophisticate CI methods that have resulted in small changes to the approach over time (Luburic 2014). The association of science within CI positions it as a complex relationship into which scholars have made significant inroads, however there are still elusive elements that require further investigation.

In keeping with the scientific approach, a positivist ontology has emerged as the dominant research paradigm. Positivism ontology is characterised by the circular process of building a testable hypothesis, the design of an experiment through operationalising variables and conducting an empirical study based on experimentation that aims to develop generalised findings and structured observations of reality (Park et al. 2020; Siddiqui & Iqbal 2021). Limiting the phenomenon under investigation to a positivist perspective assumes it can be isolated from the context it occurs within (Meredith et al. 1989). This becomes problematic for CI as it excludes the social and relational elements from the discourse. Scholars in researching Quality 4.0 have applied a critical lens that has seen calls for the inclusion of a human-centric approach (Sony et al. 2021). Moreover Meredith et al. (1989) call for the application of alternative paradigms when researching issues such as quality to assist in representing a contextual perspective. This historical recognition of the need for alternative ontological viewpoints has been overlooked as an area of future research in the field of CI. Considering another theoretical frame will enable the foregrounding of social contexts and the impact of these on workers. To adopt an alternative ontological frame for analysis will allow problems influenced by social phenomena, such as creativity, collaboration, learning and human agency to surface. To date these have been overlooked or at best discussed in terms of responsibilities for upper management to respond to, in the tradition of the mechanistic paradigm. Such adherence to a limited ontological stance can be attributed to the existing research gaps. Adopting a different theoretical orientation within the field of CI challenges the existing approach that has argued for a causal explanation of unsustainable CI. This has shown to simply maintain rather than reconceptualise CI practices as a set of organisational practices.

In the examination of CI in as an organisational phenomenon, scholars have categorized their findings as belonging to one of two organisational paradigms, that is the mechanistic paradigm or organic paradigm (Brown 2014; Burns & Stalker 1961; Spencer 1994). Gharajedaghi and Ackoff (1984, p. 290) succinctly describe the mechanistic model as "a machine that works with regularity, dictated by its internal structure and the causal laws of nature". The mechanistic paradigm is characterised by a hierarchical structure and is centrally controlled by an autonomous authority. Such authority can affect any part of the system without being affected by it. Those working in the system - other than the one with ultimate power and authority - receive only the information necessary to complete their job. Adherence to rules is expected. Interactions are kept to a minimum. The description of the mechanistic paradigm offered by Gharajedaghi and Ackoff (1984) align with the description of scientific management that later emerged as an early modality of CI as described previously when considering a positivist approach. The mechanistic paradigm becomes problematic as it ignores social systems and the effect the organisation has on and in the environment it operates. The continued rigidity and adherence to rules and regulations often results in dysfunction and the effectiveness of the organisation is said to suffer as a result (Gharajedaghi & Ackoff 1984).

In contrast the alternative organic model assumes the pursuit of all systems is the need to survive that displace performance goals (Gharajedaghi & Ackoff 1984; Spencer 1994). In the organic paradigm vision

replaces fear as a motivator, workers are committed to the organisation vision and undertake their work with a common purpose. There are shared beliefs around the values of the organisation that replace the command and control of the mechanistic paradigm. Workers are given latitude to make decisions and are enabled to develop networks both inside and outside of the organisation. Systems are decentralised and importantly workers are empowered to "talk to one another as needed to solve problems and to find new ways of doing their work" that reduces waste and improves quality (Spencer 1994, p. 457). In this rich description of the organic paradigm we see critical reflection is a key determinant.

In discussing organisational change Tsoukas and Chia (2002) contend the dominant theme of the discourse is the privileging of stability, routine and order. This has resulted in organisational change being treated as exceptional rather than the norm. Tsoukas and Chia (2002) present the argument that processes of change are ongoing in organisations as workers engage in improvisations, modifications that may go unrecognized, not officially taken up or local adaptations that never become standardized. These subtle changes take place by adaptation, variation and opportunistic wins in the workplace and often creep and drift through the organisation (Tsoukas & Chia 2002). By implication the mechanistic and organic paradigms operating within an organisation require a shift that sees moving the focus to the social elements of work. In response, to adopt a practice lens is to focus on the work, discourse, activities, skills and knowledge of workers in organisations (Chia & MacKay 2007).

In summary, the CI literature has a number of shortcomings. These can be summarised as: advocating the sustainability of CI is obtainable if management consultants are brought into an organisation; CI literature is most often situated within the scientific approach to work that ignores the social elements of such; scholars present their work through a positivist lens that in doing so ignores the position of organisation context. Furthermore the academic literature pertaining to CI is often time situated in one of two traditional standpoints, that is, mechanistic or organic paradigms. Lastly, organisational change is treated in CI literature as the exception and in so doing reinforces the episodic nature in which CI is implemented within organisation. Overall such positioning of CI in the literature has looked to compliance instead of deeply embedding a quality culture. Calls have been made for the adoption of a different theoretical framework that enables the researcher to consider phenomena in a relational way. Such a framework should accept that the practices of workers are influenced by pre-existing arrangements that prefigure how workers go about their practice. Such an approach gives primacy to the individual and redefines the approach to CI. The next section will present how this study addresses these research limitations.

Aim and significance of study

To bring about a focus on the social, dialectal elements of CI, this research will use the Theory of Practice Architectures. Such a position necessitates the examination of interconnected social structures, institutions, relations, customs, values and practices that maintain and enforce certain patterns of relation and behaving (Schatzki et al. 2001). In their interest in the ordinary, everyday happenstance of life, practice theorists focus on how everyday practices and material arrangements constitute the foundation of

social life. Further, practice theorists consider that we are all carriers of practices where the performance of these is undertaken with variation as we adapt to new contexts and changing circumstances. This situates practice theorisations beyond the concept of knowledge as something contemplative and rational towards something that is emergent, practical and applied (Gherardi 2012). A range of research areas have undergone examination by practice theorists, for example: organisational learning: Gherardi and Nicolini (2000); healthcare: Blue et al. (2016); nursing: Bender and Feldman (2015); vocational education: Francisco (2020). Practice theories provide a new perspective on social research and promote differing views.

Currently, workers are experiencing the nature of work shift and change on a daily basis as they navigate their way through a global pandemic. The increasing complexity in the way work practices are conducted has challenged practitioners to examine what shapes and sustains their current realities and how they are able to respond appropriately. This research addresses current research limitations by applying TPA. The theory of practice architectures is a living, evolving theory that has been influenced by the work of eminent scholars including Marx, Habermas, Aristotle, Giddens and Schatzki (Kemmis & Mahon 2016). At the core of TPA is the study of social life, where the researcher considers what workers say, do, and the ways they relate to one another and their environment. By adopting TPA the researcher can look at the complex web of interconnections that shape, sustain and transform worker practices as they enact CI. Furthermore, it enables examination of the ways these practices are both enabled and constrained by the conditions under which they occur (Kemmis, Bristol, et al. 2014).

This research will draw upon the work of Stephen Kemmis and his work in the development of the TPA. The earlier work of Kemmis is grounded in educational research: Edwards-Groves et al. (2010), Kemmis (2018), Kemmis, Bristol, et al. (2014); action research: Altrichter et al. (2002), Kemmis (1985), Kemmis and McTaggart (1988, 2000), Kemmis, McTaggart, et al. (2014); critical praxis: Kemmis and Grootenboer (2008), Kemmis and Smith (2008a) and the Theory of Practice Architectures: Kemmis (2005, 2008, 2009, 2010). I am drawn to the work of Kemmis and his colleagues as they foreground improvement to professional practice that shifts the focus from practice knowledge to looking at material, social and discursive elements and the historical conditions and relations that act to shape and often disfigure practice (Kemmis 2005).

The lens of the TPA enables a holistic view of the organisation, where the foci of cultural-discursive, material-economic, and social-political orders and arrangement prefigure and shape the content and conduct of (in this research, CI) practices, shaping the distinctive sayings, doings and relatings that occur in those kinds of practices (Kemmis et al. 2012). The architectures give CI practices their meaning and comprehensibility in terms of the sayings and 'thinkings' that occur in a practice in its cultural-discursive dimension, as it is composed in semantic space and in the medium of language. Further, it gives CI practices their productiveness in terms of the 'doings' that occur in a practice in its material-economic dimension, as it is "constituted in physical space-time" Kemmis et al. (2012, p. 35) and in the medium of work or activity. The TPA provides the kinds of connectedness and solidarity among the people and

objects involved in a practice, in terms of the relatings that occur in a practice in its social-political dimension, as it is constituted in social space and in the medium of power (Kemmis et al. 2012). Other theoretical lenses, including positivism, empiricism and post-positivism used to examine CI have considered practices as established, rigid and unwavering. The significance of the TPA to the research questions is that practices are considered as they unfold in unique and differing ways at sites. The study of practices plays a crucial role in the orchestration of transforming our understanding of CI as it is enacted.

At the heart of Kemmis' theorisation of practice is the notion of intersubjective space: it is the space in which lives are lived, in which subject and object, knowledge and action interact. It is this space where practices are manifest (Kemmis 2021). Kemmis (2008) has characterized the individual and extra-individual features of practice to suggest that to change a practice requires much more than changing the knowledge and actions of individual workers; there is a requirement to change the extra-individual features and elements of situations associated in practices. Local government (and the public sector by extension) have implemented a range of tools in attempting to change their CI practices that has resulted in an array of CI practices 'designed' to meet award criteria. The TPA provides the frame to understand when and how this may happen. To change a practice requires changing the cultural and discursive arrangements in which the practices are understood locally, the social landscape in which people connect with practices locally and the material-economic fields in which they act in and on the material worlds:

I. Practices have their own shape that may differ between participant, for example customer service officer and rate payer or customer service officer and customer service officer. At the individual level practices are prefigured in discourse, social relationships and material-economic arrangements.

II. Practices are situated. Workers need to deliver an integrated performance that answers the needs of a specific client in the specific setting under a particular set of circumstances. At the individual level the practice is located in a particular context that has cultural, discursive, social, material and economic dimensions.

III. Practices are performed through and over time. At the extra-individual level cultural-discursive dimension, practices themselves evolve over time as does the configuration of the community involved in the practice.

IV. At the individual level practices feature relationships between participants who occupy different roles such as librarian and student. At the extra-individual level these roles are discursively framed by the interpreted traditions and theories that are internal to the field of practice.

V. Practice is reflective in that practitioners can observe their individual performance as they practice and modify their performance. Criticial reflection is transformative and gives practice meaning and significance.

VI. Differing perspectives favour different forms of reasoning leading to practices differing in the aims, dispositions of workers and the type of actions that characterise a particular practice.

This representation by Kemmis (2010) foregrounds practice theory to be a rich and complex framework that enables the exploration of the diverse character and profuseness of practice.

To adopt a theory of practice architectures stance offers the opportunity to investigate what happens – "how life and practices unfold in intersubjective space where we encounter one another and the world" (Kemmis 2021, p. 7). This view of practice enables a consideration of the intersubjective space in which CI practitioners (and workers more generally) find themselves and provides a powerful way to view and identify what are those conditions in the organisation that enable and constrain CI practices and, importantly, what arrangements are necessary for new practices to be produced.

The aim of this thesis is to understand how CI is enacted through practitioner and worker practices in NSW local government. To do this, this research applies the TPA to analyse the findings. The research questions that guide this work are:

RQ 1.   What are the practice architectures in local government that impact CI?

RQ 2.   How do these enable and constrain CI being enacted?

RQ 3.   How can the adoption of reflective practice influence the flow of CI practices?

By using the TPA this research shifts the prevailing CI research focus away from the application of tools and frameworks towards the practices of CI practitioners and workers and the practicalities of enacting CI in NSW local government. The research foregrounds both practitioner and worker practices and the contribution these make to sustainable CI. To apply the TPA enables examination of the under-researched area of the architectures that enable and constrain CI practices in NSW local government

Overview of this research

This work is structured into seven chapters including this introductory chapter.

Chapter 2 *Practice theory as a research framework* - I present the philosophical and theoretical foundations of this study. The first section will outline the ontological and epistemological foundation of practice theorisation. The second section will present the TPA.

Chapter 3 *Literature review* has three sections: the first is *continuous improvement* – I introduce the main theme of the research, CI. This chapter aims to explain the developmental history, the work of acknowledged key theorists and their methodologies. The last section will explain CI through the lens of the Theory of Practice Architectures (TPA).

The second section of the literature review presents literature pertaining to *local government in Australia*. In this chapter I consider the role of NSW local government. Local government in Australia has been required to respond to ongoing reform. One such reform has been the federal government policy

deployment of New Public Management. This policy has placed significant downward pressure that has required NSW local government to search for greater efficiencies. The response by NSW local government has seen the adoption of a range of quality framework and new practices into NSW local government that often struggles to be embedded.

The third section of this chapter considers the literature of *learning and CI and implications for NSW local government*, where I discuss the concepts of CI and how learning is implicit in their enactment. The literature moves to a discussion of learning as understood by practice theorists. This is followed by reflection, critical reflection and the place of these as an approach to learning. The last section brings together a discussion on learning and it is interpreted through the lens of TPA.

Chapter 4 *A qualitative approach to CI research* - will explain the methodology used in this research. This chapter aims to explain the rationale behind the action research approach and provide a transparent description of the data analysis process. The first section will introduce the research paradigm of social constructivism that has guided the research and explain the research method. The second section will describe the context in which the data was collected, describe each of the action learning sets (ALS) and discuss the data analysis process through a critical reflection by the researcher.

Chapter 5 *Research data analysis and results* – the research data is obtained through interviews, action learning sets, researcher notes, direct observations.

Chapter 6 *Discussion* – will discuss the findings of the research. The results will be presented according to the research questions.

Chapter 7 *Conclusions* - will present the concluding remarks of this research. The aim of this chapter is to illustrate the research contributions that have been achieved. The first section will examine these contributions, while the second section will revisit the structure of the research and provide a brief summary of each chapter. The third section will discuss research limitations and present future research directions.

Chapter 2 - Practice theory as a research framework

Introduction

Practice theory consists of a broad field of ideas. Rather than one unified theory this heterogenous family of ideas places a firm emphasis on human action in the enactment of practice (Schatzki 2001). Practice as a concept may refer to many things in many contexts, for instance yoga, chairing a meeting or teaching. In adopting a practice lens my ambition is to research how and why CI practices may sustain in one organisation and not in another. To this end I draw on the role of learning in the emergence, maintenance and change of practices. From this perspective, the social world is presented as a vast array of performances made robust through being inscribed in bodies, minds, objects and texts and interconnected in such a way that the performance of one practice becomes an input for another (Feldman & Worline 2016; Nicolini 2017). Practice theory provides a useful lens to examine social practices, including those of organisations; how these happen, how they are negotiated and the role they play in the constitution of social life (Mahon et al. 2016a). The aim of this chapter is to outline the theoretical foundations of the Theory of Practice Architectures (TPA).

A practice lens and practice-based studies are a few of the assorted labels that have been attached to analysis of a wide range of phenomena including sustainability, technology and learning (Nicolini 2017). It is the capacity of such an approach to describe features of the world we inhabit as something that is routinely made and re-made in practice, using tools, discourse and our bodies which is said to appeal to scholarly research (Nicolini 2017). In this broad field some practice theories are more epistemologically-centric than others, for example Gherardi (2008) focuses on how knowledge is caught up in practices, whereas others, such as Schatzki (2002; 2010), position their work as ontologically inclined, showing how social life is composed in sociomaterial realities and especially shaped by the arrangements amongst which the practices are enacted (Rönnerman & Kemmis 2016). The significance of this chapter is that it demonstrates the utility of the use of one of these ontological inclined theorisations, that is the Theory of Practice Architectures (TPA)- see for example: Kemmis, Bristol, et al. (2014); Kemmis et al. (2017); Kemmis and Grootenboer (2008). It is the lens of TPA that I believe will allow an understanding of how CI 'works': how the arrangements that constitute it (that Kemmis and his co-authors label as practice architectures) enable and constrain worker practices, that is, "what they say, what they do and how they relate to each other and the world" (Rönnerman & Kemmis 2016, p. 94). Specifically, it is the understanding of praxis that Kemmis and his co-authors bring to the literature through critical reflection that is central to this thesis.

The introduction of this chapter pointed to the heterogeneity of approaches taken in the understanding of practices. All scholars, whether implicitly or explicitly, adhere to a set of epistemological choices in order to distinguish between reliable and unreliable comprehension of the phenomena under examination

(Duberley et al. 2012). To understand practices requires a theory or suite of theories that highlight the sociality of practice being action and interaction (Grootenboer et al. 2017) in doing so many approaches are opposed, those that focus on, for instance individualism (Schatzki 2001). Theories that examine practice and the enactment of it consider how practices develop the role of practitioners in a practice (Feldman & Worline 2016). The nature of practices with their nuances and complexity has resulted in no one unified theory but instead a web of theories that share much in the way of conceptual frameworks and similarities (Nicolini 2013; Schatzki 2001). However common ground may be found in the manner in which most practice theorists acknowledge that activity is embodied and nexuses of practices are mediated by artifacts, hybrids and natural objects. However, disagreements are made apparent when the nature of embodiment is examined and the importance attributed to it in the analysis of practices, entities that mediate activity and whether these entities are relevant to practice as something more than 'intermediaries' among humans (Schatzki 2001). For example, the layout of a meeting room may influence how the meeting is conducted by the chairperson, or indeed how meeting participants engage in the meeting.

Garfinkel (1967) is credited to be an early proponent of practice theory whose body of work in ethnomethodology has gone on to inform the study of practices (Grootenboer et al. 2017). It is Garfinkel's focus on enquiry into everyday social phenomenon that has led to understanding practices as locally accomplished. The adoption of this social ontological stance enabled the further development of practice theories that have as their foci the primacy of discourses that both flow discursively through practices and simultaneously shape the in-the-moment accomplishment of practices (Grootenboer et al. 2017). Other social theorists have developed theoretical frameworks on critical discourse analysis - see for example Fairclough (1995, 2003) and Gee (2008) - however, though not positioned as theories of practice, as discussed by Nicolini (2013), the work of these scholars do locate the centrality of discourse in practices as discursively produced social action (Grootenboer et al. 2017). The work of Garfinkel situates the 'sayings' in the discourse of practice theory.

Notable among the social theoretical contributions to practice theorisations is the work of Ludwig Wittgenstein. The work of Wittgenstein is understood as influencing the importance of the saying/thinking elements of practice theorisations. Wittgenstein's characterisation of practice centers on sensemaking, intelligibility and comprehensibility made perceptible in language in the doing of things. To take a Wittgensteinian view is to assert that practices "are social (they help people combine as a group), are set in motion by processes of intelligibility and are given some coherence and identity by their inherent teleological nature" (Nicolini 2013, p. 171). Wittgenstein proposes that social practices cannot be reduced to discursive practices alone. Drawing on the work of Wittgenstein, Schatzki (1996) considers language as social action that release meaning in practices. Thereby it is language more so than speech that meaning enters and exits the spatiotemporal moments of activity, as people as interlocutors in interaction come together to do things of various kinds. Wittgenstein centrally locates the idea of language games as necessary in understanding practices and the social nature of practices. Furthermore, Kemmis, Bristol, et al. (2014) note that practices are recognisable and understandable through and by

language and the routines, patterns, rules and social forms that apply influence or direct its evolution.

It is the early work of Schatzki in a call for a 'practice turn' Schatzki et al. (2001) to contextualise educational practices to better understand the nature and complexity of actual practice that has since launched new developments in practice theorisations. Schatzki, as a social theorist, considers practice theory to include an understanding of the interactions between workers and the role non-human objects play in the way a practice proceeds. Schatzki pays attention to practice as the "primary generic social thing" Schatzki (2001, p. 1) and a focus on enactment of social life as it occurs through the nexus of "practice and material arrangements" (Schatzki 2005, p. 471). Practices are not seen as the property of individuals but are the property of the social site. Schatzki exemplifies this by his foci on the enactment of social life through a nexus of practice and material arrangements (Mahon et al. 2016b). This dissertation embraces the Schatzkian notion of 'site' social ontology (Schatzki 2002) that is supported by Kemmis and his co-authors. Both Schatzki and Kemmis uphold the idea that practices are the central element in the constitution of social phenomena as they happen in a site. Schatzki (2002) identifies a particular type of context that he names as the 'site' which can be understood as the "the context or wider expanse phenomena, in and as part of which humans coexist" (Schatzki 2002, p. 147). For example, organisations may be considered a 'site' (Schatzki 2005). Schatzki goes on to describe site as a type of context in which the practice takes place, the two of which are inseparable. Kemmis and his co-authors argue that the role of individuals in undertaking practices can only be understood within the arrangements and conditions that both enable and constrain the practice as it is experienced among the other practices that exist at a site (Kemmis, Bristol, et al. 2014). Both Schatzki and Kemmis recognise the constitutive relationship between the practice and a site.

A site ontological approach has expanded the social philosophy practice-based approach to enquiries into, for instance, work (see for example Fejes & Nicoll 2012), education (see for example Kemmis 2018), health (see for example Meier et al. 2018) organisations (see for example Gherardi & Nicolini 2000) and technology (see for example Orlikowski 2007). The use of a practice theoretical approach enables the accounting of layers, levels, intricacies, and situatedness of enactment. Furthermore, practice theory is said to liberate the researcher from functionalist perspectives of collective consciousness to include the multidimensionality and dynamism of being in and participating in the social world (Grootenboer et al. 2017). A notable feature of practice theory is its ability to bring together aspects of both work and social life when these have been usually treated as oppositional concepts in epistemological frameworks. Practice theories offer an ontological dimension that is "more reflective of life and work as it unfolds in time and space" (Grootenboer et al. 2017, p. 4). Rather than seeing the social world in a dualistic way, practice theories allow the researcher to examine the mutuality, constitution, sustaining nature and relationality of practices as interconnected and irreducible. The use of practice theories may offer a richer, more rounded comprehensive understanding of social phenomena by encompassing more than that which is available through analyses that only take into consideration one dimension such as language (Grootenboer et al. 2017).

In the following section I introduce TPA.

Theory of practice architectures

Introduction

The Theory of Practice Architectures (TPA) is a contemporary account of social life with a focus on practice (Mahon et al. 2017). To adopt this stance is to look at the conditions in which practices are set, enabled and constrained and allows the finding of new ways to change these (in this research context unsustainable CI sets of activities). The notion of CI consisting of a set of practices is discussed in Chapter 3. TPA shares much in common with other practice theories. However, it moves along another trajectory in some aspects that takes a unique ontological view, in the context of CI literature, in what practice is and how practices are shaped and mediated and how practices relate to each other.

The theory of practice architectures

TPA is a theoretical resource for understanding professional practice, and an analytical resource for revealing the ways practices are enabled and constrained by the conditions under which they occur Mahon et al. (2016b) and a transformational resource for navigating ways to adopt new professional practices where the current practices and conditions are unproductive and unsustainable. The transformational change of practices emerges in praxis at the personal level (Kemmis 2008; Kemmis & Grootenboer 2008).

A practice is understood as a socially established cooperative human activity involving words and forms of understandings (sayings), modes of action (doings) and ways in which people relate to each other and the world (relatings) that 'hang together' in characteristic ways in a distinctive 'project'. According to Kemmis et al. (2016) the aim of the theory is to discover how practices both visible and performed emerge and what conditions make them possible. Investigation of phenomena using this lens encapsulates more than the types of arrangements that support a practice but questions why the practice takes the shape it has. The theory of practice architectures is described by Kemmis et al. (2016, p. 242) as a 'kind of critique'. This critical approach to practices seeks to understand how the language used in practices may be unsustainable because of false, misleading or unreasonable misunderstandings of the world or each other. Furthermore, the approach considers how the activities of work populate practices that might be unsustainable in terms of the ways they are deployed, consume and waste energy and resources, and the ways workers relate to each other and the world in their practices because they cause suffering or injustice. To apply the theoretical lens of TPA enables the researcher to arrive at critical insights about how practices, and the practice architectures that make them possible, make worlds that are progressively sustainable or unsustainable for those who inhabit them and the other things that share their world.

In general discourse, the notion of something being enabled is considered to be positive and the notion of

something being constrained is considered negative. One example is learning. To enable learning is generally recognised as a positive action, whereas to limit learning is associated with negative feelings - that an opportunity has been missed. Central to the TPA is that these terms - enabled and constrained - are indeed two sides of the same coin (Kemmis et al. 2016). For example, constraining the time allowed to borrow a textbook from the library is a positive shift that enables more students to access the book throughout the day. This works in much the same way enablement and constraint orchestrate how people relate to one another: what is said and done. So too, the physical objects in physical space-time enable and constrain action. Power and solidarity in a social space both enable and constrain how we relate to each other and the world. We enter the world as a place that is populated already with conditions that make some things possible, and at times we may be able to alter those conditions of possibility (Kemmis et al. 2016). TPA enables a repositioning of our understanding of the concepts of enablement and constraint and how these work to influence practices.

Practices are not predetermined

In presenting practice architectures as three arrangements of cultural-discursive, material economic and social-political preconditions that make practices possible and that are in in turn produced by practice, I wish to explore how Kemmis considers practices to coexist and connect with one another. The study of practice brings with it an inherent curiosity to understand how we can do them better, more sustainably, to look for the new opportunities and consider what should we be doing differently (Kemmis & Mutton 2011).

In response to criticism of the theory of practice architectures, where analyses suggest that practices unfold seamlessly in sites because of the prefigurative power of the relevant arrangements, Kemmis et al. (2016) have responded by asserting that practices and practice architectures are formed in ways that are challenged, disordered and conflicted. Practices do not spring forth fully formed or predetermined from the practice architectures that sustain them; rather they struggle and reassert themselves in the midst of formal and informal influences of individuals and groups each working toward their own agendas and goals. Practices are analogous to living things where they unfold in the happenings of the site, occupied by humans going about their daily routines and activities (Schatzki 2006). Existing practice and practice architectures may be replaced if more robust alternatives come along ready to compete for survival (Kemmis et al. 2016).

Drawing a distinction between predetermination and prefiguration is critical to the TPA. A key tenet of this theory is the importance of the primacy of the site as containing the necessary but insufficient conditions of possibility for practices to emerge in one form rather than another (Kemmis & Mutton 2011; Kemmis et al. 2016). Additionally practice architectures are the particular nexus of arrangements that make certain practices possible in specific sites. These architectures make other practices less possible and overall less likely to emerge at a particular site at particular times (Schatzki 2002). For example, the discourse of copyright policy introduced into libraries across Australia limited the number of pages that could be copied from a single textbook. For students and academic staff the pre-existing

practice of preparing for lectures by copying book chapters beforehand is no longer possible. For the library, this change in copyright policy resulted in an increased demand for more textbooks to be made available. A corresponding drop in the volume of copy paper being consumed became evident from the shift in practices. This shift in copyright policy resulted in new practices emerging in the library; for example, a time limit on the borrowing of required textbooks necessitated some students to approach the borrowing desk for the first time. For some students this necessitated a change in their university attendance practices that saw many students commence their day earlier so they could borrow the textbook before the start of a lecture. Far from a smooth process of determination, the formation and transformation of practices were achieved through contestation, dynamic and dialectical processes that bore witness to some practices unfolding in a specific site and not in others. By way of explanation Kemmis et al. (2016) note that the unfolding of practices is prefigured by the historical and contemporary conditions of possibility and affordance that relate to a specific site but not to another.

Practice arrangements

Within the theory of architectures of practice, practices are enabled and constrained by arrangements. What are these 'arrangements'? Three kinds of arrangements are present in a particular site: cultural-discursive, material-economic and social-political. Kemmis et al. (2016) expound that far from being rigid or long-lived, practice architectures will shift and change over time and they may be disorderly as well as orderly. Practice architectures are variable. The arrangements found at a site are matters of 'happenchance' (Kemmis, Bristol, et al. 2014). They were once produced by a particular thing that happened – including past practices – and they will change as different things happen. A key aim of the theory of practice architectures is to examine how and when these particular arrangements came to exist and how securely or insecurely they prefigure the way a practice unfolds (Kemmis et al. 2016). Humans are adaptable and will vary the performance of a practice to avoid obstacles and untoward outcomes, rise to a challenge or seize an opportunity. In doing so we act within the constraints of the practice architectures, but the practice can alter as circumstances change. In the same way practices and practice architectures adapt to one another (Kemmis, Bristol, et al. 2014).

Kemmis et al. (2016) discuss that practices in the repertoire of workers may tend to be reproduced in the future, but at the same time there is the capacity to vary and adapt that practice when circumstances change. Due to their adaptability, practices have the power to be transformed in the right circumstances. These see the practice unfold in a different manner. For example, up until 2021 the majority of workers would commute to work each day to attend their workplace in person. With the COVID-19 pandemic restricting the number of people that can congregate in an area, numerous workers worked remotely from the office - usually at home. This change has meant that no longer was there a requirement to travel to work or dress in professional business attire. The ways in which a worker interacts with others has changed via various technological interfaces which in turn has an impact on their practices of work. This example illustrates how the practices of work are able to be varied and reproduced when governments (or another internal or external force) introduce policies to contain the spread of COVID-19.

The project of a practice

Kemmis, Bristol, et al. (2014) recognise what gives practices their distinctive character, as a practice of a particular kind is captured in what they accept as "the project of a practice – what the practice hangs together in" (p.31). A project is undertaken in the conduct of the practice and the ends the worker aims to achieve (the telos of the practice) (Mahon et al. 2016b). An example of a 'project' of practice could be situated within the library where a librarian is engaged with supporting higher degree research students. The project of the practice is inclusive of the identification (doings) of the appropriate databases for the student to research their topic in. As an observer we may see the librarian and the student (relatings) sitting in front of a computer screen where the librarian is using a 'keyword search' (sayings) to generate a list of potential research journals (doings). The teleo-affective nature of the project is found in the intention that motivates the practice actions of these interconnected sayings, doings and relatings, that is, the ends the student aims to achieve.

The notion of hanging together in a project is understood to be crucial for identifying what makes particular kinds of practices distinctive (Kemmis, Bristol, et al. 2014). In practices, particular kinds of relevant doing, sayings and relatings are coupled in a comprehensible way in the pursuit of the project of the practice (Mahon et al. 2016b). The sayings, doings and relatings of a practice cannot be reduced to any one of these actions on its own, hence the lens of practice architectures enables a researcher to investigate how particular sayings come to hang together with particular doings and a particular set of relatings (Kemmis & Mutton 2011). As Kemmis avers, the project of the practice is inclusive of sayings (and thinkings) that includes the cognitive elements and discourse. Doings refers to the psychomotor elements and relatings considers the affective components, as outlined in the library example above. The understanding of a project of practices is the bundling together of the teleo-affective structures and dispositions (habitus) of the workers. In Chapter 3 the teleo-affective nature of CI is explored in greater detail.

The adaptability of practice

The ability to reproduce and transform practices is fueled by its capacity of adaptability where we are able to observe the reproduction of former practices or vary them to meet new or unusual circumstances (Kemmis, Bristol, et al. 2014; Kemmis et al. 2016). The power of adaptation also allows the reproduction and change of any practice architectures that are constructed or produced by the practices of humans. Practice architectures may be mostly stable over time but then become objects of contestation and destablisation. This being the case, those practice architectures that are products of human agency can be restored, destroyed or transformed. If transformed they may become institutionalised and then in the future they may be objects to be contested once again. Kemmis et al. (2016) assert that seen in this way contestation and institutionalisation are not polar opposites but considered as two sides of the same coin. This notion of contestation and change is also a theme that is evident in CI literature. This theme is examined in the following chapter that has CI as its foci.

Some practice architectures develop deep roots that makes them more resistant to change (Kemmis et al. 2016). By way of example Kemmis et al. (2016) discuss how the practice architectures of neoliberal management have established themselves in the public sector. For instance, Western healthcare policy has seen the commercialization of medicine and the prioritisation of private interests over public ones which have negatively impacted health and quality of life over the last thirty years (Navarro 2020). The adoption of neoliberalism more widely has seen the deregulation of a globalized workforce together with social austerity. Together both factors have contributed to the range and spread of diseases (Navarro 2020).

Agency of practice

The TPA centers on the primacy of practices as the key site for human sociality and its account of the self-determining individual as the locus for transformation (Kemmis et al. 2016). Practices are performed by humans and are enmeshed with, and held in place by, specific practice architectures which gives sites their distinctiveness and materiality (Kemmis et al. 2016). The activities of humans can and do shift these arrangements that may see the rise or disappearance of some practices. Site arrangements set up the conditions of possibility for some practices and not others; however, it is the humans who choose to perform a practice (although some conditions may leave little in the way of choice to enact a practice) (Kemmis et al. 2016). Circumstance may allow for workers to innovate or attempt new ways in how they conduct their practice, leaving room for creativity where we see those workers demonstrating emphatic forms of agency (Kemmis & Mutton 2011). Kemmis et al. (2016) provide an element of hope in understanding the constraints within which workers work; that when needed, workers can access opportunities to envision and enact alternative conditions that make new practices imaginable. As workers inhabit their practices they bring with them their individual and professional histories and dispositions to the work of sensing, deciphering and differentially enacting and fulfilling, or challenging and perhaps resisting the projects of different practices (Kemmis et al. 2016).

In discussing the notion of agency, Kemmis, Bristol, et al. (2014) insist on the centrality of humans in the enactment and realisation of practices that sees practice as being a human and social activity embedded with moral, political and historical dimensions. This centers workers as makers and transformers of history through their individual and collective action. Furthermore, this view offered by Kemmis, Bristol, et al. (2014) also recognises that agency is more than an individual matter but is also realised through the interactions between workers and the non-human world; that is, through particular kinds of material resources that shape worker practices. For instance, consider how the following material resources impact on a worker when they are socially isolating: no meeting rooms, changing the physical place of work to home, and internet connectivity that may be less stable. Additionally Kemmis, Bristol, et al. (2014) assert that practices are interactionally secured where the word 'secured' refers to agentic action and an ongoing process, not a foreseeable result.

Intersubjectivity and the three-dimensional composition of intersubjective space

As we come to encounter each other in our enactment of practices these encounters also position us as individuals and as subjective beings, where Kemmis et al. (2016) contend they assist to form our habitus and identities for both ourselves and others, where our subjectivity is largely formed intersubjectively. Bourdieu and Nice (2013) describe habitus as the habitual way that workers (as agents) have of entering into social relationships with the social world. It is habitus that provides us with a set of operating principles, providing a feasible way of behaving in various circumstances (Baxter & Chua 2008). For example, a librarian has a habitus that predisposes them to immerse themselves in research or to provide support and advice to others undertaking research of their own. The TPA maintains an ontological stance, where practices are understood in terms of what happens in practice as it unfolds in the day-to-day life of workers and attends to the ways in which they encounter each other in interaction as it happens. These encounters see workers as interlocutors in language and as co-participants in activity and relationships of various types (Kemmis et al. 2016). In recognising that workers co-exist in human activity where they create and open up intersubjective spaces, we also recognise that they act in the present in a space that was shaped by the past, all the while anticipating possible future actions and outcomes (Kemmis, Bristol, et al. 2014).

The social achievement of practices is achieved in practice by the enactment of sayings, doings and relatings that are held together in the project of a practice (Mahon et al. 2016b). These sayings, doings and relatings combine to form practice architectures that both enable and constrain the interactions of workers in a particular space, resulting in a three-dimensional shape to the intersubjective space (Kemmis et al. 2016). What do these authors mean by their use of the term – 'three-dimensional intersubjective space?' The cultural-discursive embraces only that which appears in semantic space – in the linguistic world in which we encounter one another in language, enabling and constraining what we can think and say and what we can mean. For instance, the language of librarianship is unique to the craft of librarians where the discourse of ISBN, Dewey decimal system, copyright and information situate the practices of librarianship. The 'material-economic' encompasses only what appears in physical space-time – in the materiality of things in the physical world in which we encounter one another enabling and constraining how can move around in the world. An example of the material-economic might be the way a library is set out in clearly defined spaces for quiet work such as reading or the use of small meeting rooms for group work. The 'social-political' embraces only what appears in social space – in how we will (or perhaps will not) make connections of belonging and solidarity with one another, inclusive of the relations of power with or over or under one another that may see us: socially integrated in conflict or in accord with others; or willing to/or comply with others (Kemmis et al. 2016). For example, a meeting of library staff inclusive of student casual staff, book conservators, librarians from satellite campuses and the main library, coming together to discuss COVID-19 safety protocols is illustrative of connection, belonging and solidarity occurring within the site of a university library.

The three dimensions of intersubjective space are constantly being mediated and contested by existing and current practices and by the site-specific cultural-discursive, material-economic and social-political arrangements where both humans and practices enable and constrain what is possible. Kemmis et al.

(2016) propose that people become practitioners of practice by co-inhabiting intersubjective spaces in-the-moment, in both physical and historical space-time. This sees the constant revision and renewing of practices (as established in the above example), the practice architectures that enable and constrain workers - their intersubjectivity, identities, outlooks and agency.

Ecologies of practice

Ecologies of practice is a subsidiary part of the theory of practice architectures. Kemmis et al. (2012, p. 41) argue practices are "like living entities" that can be ecologically related to one another and that may sometimes "coexist" in complex ecologies or webs of practices that are akin to living systems. The notion of 'ecologies of practice' is not new. Scholars, such as Stronach et al. (2002) have used it to describe the individual and collective experiences, beliefs and practices that professionals accumulate in learning and performing their roles (Kemmis, Bristol, et al. 2014). Conditions and arrangements existing within and beyond an organisation constrain what can go in them. For example, federal government economic policy influences university budgets. The availability of budget resources for the purchase of library books, computer hardware or specialized equipment such as a 3D printer, work to enable and constrain practices of education. Other influences such as organisation policies, quality frameworks and unions of workers can influence the practices operating within the organisation. Workers too influence a site when they bring their practices and co-inhabit it with other workers, objects and practices in interdependent relationships in and through their practices (Kemmis et al. 2012).

In their recognition of practices as something akin to a living thing, Kemmis, Bristol, et al. (2014) show that practices depend on the people who enact them and are shaped by both non-living and non-human objects. Practitioners may be 'motors' for practices, as practices might be living through the organic connection they have with a practitioner. One practice may also be an input into another practice. Consider a librarian delivering a tutorial on the use of Endnote software in one of the university computer labs. The manner in which the tutorial is delivered acts as an input into students knowing how to cite references correctly. The ability to accurately cite reference materials acts as an input into learning how to introduce the scholarly work of others into a student's own work. The practice of teaching the use of Endnote software may be dependent upon how many students participate in the tutorial. A large number of students may influence how a librarian conducts her teaching practice. This is an example of the web of interconnections that exist between practices. The sayings, doings and relatings of a practice are shaped by the sayings, doings and relatings of another practice. It is these chains of interdependencies that enable us to consider practices as existing in ecologies (Kemmis et al. 2012).

In the consideration that practices relate to one another in a way similar to a living system, Kemmis, Bristol, et al. (2014) explore the extent to which practices can relate to each other in ways that are like a living system by adopting Capra's key features of living things (Capra 2005). These are summarised as: "every living thing is a living system; the parts of the living system are themselves living systems; communities of organisms are living systems" (Capra 2005, p. 19). If indeed practices and ecologies of practices are living systems, then these are considered to behave in accordance with Capra's eight

principles. These are: networks, nested systems, interdependence, diversity, cycles, flows, development and dynamic balance. The following section provides an introduction into each of the eight principles.

Where we consider practices as living things, as too are ecologies of practices, then we will observe the connections of practices to one another across and within a practice site (Capra 2005; Ledwith & Springett 2010). Using the example of a professional learning community of librarians, it is possible to identify the connection between different practices of librarianship: leadership (secured within an organisation via policies and values statements), professional development (secured in the organisation by policy), and teaching (secured in the organisation through various practices). Together these practices form a network that anchors the practice of librarians.

When we apply the view that life exists at different levels, such as cells within organisms and organisms within communities of organisms Capra (2005) to practices, we will observe different levels of practice nested within one another and particular kinds of activities will be nested in different practices. This can be evidenced in the above example that demonstrates that within a network, feedback loops are in existence that see information move between, through, in and around the network, and not necessarily in a linear manner. For example, librarian leadership may be secured in various practices such as mentoring, where a more experienced librarian works closely with a new worker. In this instance mentoring may be considered to be a practice of professional development.

Within an ecosystem where the sustainability of a group of organisms and the entire ecosystem are interdependent, the exchange of energy and resources move across the system through widespread co-operation (Capra 2005; Ledwith & Springett 2010). When looking at practices in an organisation, we may say that the sustainability of different practices is dependent upon the ecological relationships of interdependence between practices within an ecology of practices and the relationships of interdependence between different ecologies of practices (Kemmis et al. 2012). For instance, building upon the above example, the practices of professional development would not be sustained without their relationship to leadership and learning in the workplace.

Capra (2005) contends a diverse ecosystem will be resilient as it contains multiple species with functions that partially overlap. Additionally, the more complex the network's interconnections are the greater the resilience. Within an ecology of practice there will exist many overlapping practices that may partially replace one another (Kemmis et al. 2012).

As matter cycles through an ecosystem in, for example, a food chain, Capra (2005) contends no waste is generated (Ledwith & Springett 2010). In the context of ecologies of practices the particular sayings, doings and relatings will cycle through practices or ecologies of practices when those practices are reproduced (Kemmis et al. 2012). For instance, we see workers moving to new roles and in so doing, bringing capabilities formed in previous projects with them.

Capra (2005) asserts that all living systems are an open system and uses photosynthesis by way of example, where the chlorophyll found in the cells of green plants absorbs solar energy from the sun and transforms it into chemical energy. Importantly an ecological system requires a constant inflow of energy (Capra 2005). In considering ecologies of practices as living things then energy will flow through it where it will either dissipate or be transformed from one type of energy to another (Kemmis et al. 2012). Kemmis and his co-authors identified three types of 'energy' that flow through the ecologies of practice, formed through the relationships between these practices: meaning, materiality, and connectedness. Furthermore, they contend it is these 'energies' that stimulate the practices and the workers who enact them that sees practices being dissipated or transformed from one form to another.

All living systems develop and all development invokes learning (Capra 2005). In the consideration of practices as living systems we can observe that practices and ecologies of practices develop in stages where the development may not occur uniformly or in uncontested ways (Kemmis et al. 2012).

Capra (2005) avers that all ecological cycles act as feedback loops to ensure that the ecological group continues to regulate and organise itself. Kemmis et al. (2012) contend that as living things practices will self-regulate through processes of self organisation and continue in relation to both internal and external pressure. This may be seen in practices gradually adjusting and adapting over some period of time. This interpretation of practices as living things that together form ecologies of practices has met with the criteria established by Capra (2005). The work of Kemmis et al. (2012) has demonstrated how they have successfully applied these criteria to their own research and delivered a plausible schema to interpret practices. In this section I have provided evidence of the plausibility of considering practices as living things that together form ecologies of practices. Recognising practices as living things brings with it a new understanding for the examination of practices at a site. Adopting Capra's ecological view to the research problem provides 'check points' for the researcher to identify whether worker actions as enacted are discreet activities or whether these are practice. In Chapters 7 and 8 I will cycle back to the work of Kemmis et al. (2012) to investigate if the practices and ecologies of practices under study in this research behave like living systems.

Applications of the theory of practice architectures

The theory of practice architectures has been applied to examine social life and social phenomena where much of the research landscape is deeply rooted in the areas of education, pedagogy and praxis (see for example: Salo and Ronnerman 2014; Clark et al. 2017; Vestheim and Lyngsnes 2016; Hobley 2018; Kemmis and Heikkinen 2012; Norlund 2019; Edwards-Groves and Grootenboer 2015). Within this landscape the area of teacher leadership has also benefitted from research using the theory of practice architectures; see for example: Grootenboer et al. (2015); Salo et al. (2014); Wilkinson et al. (2019); Olin et al. (2016). Over recent time the application of the TPA as a research lens has moved beyond the fields of education, pedagogy and praxis to now include climate change Kemmis (2022a, 2022b); leadership Edwards-Groves and Rönnerman (2021); Edwards-Groves et al. (2020); Reich and Lizier (2022) and

childhood play Kaukko et al. (2022).

Outside of the field of education/pedagogy/praxis the application of the theory of practice architectures as it may relate to CI is obscure as identified in the previous section. After searching through academic databases including Scopus, Web of Science and Google Scholar deploying a key word search combinations of: "theory of practice architectures"; "continuous improvement"; "quality" and "improvement" only one case study was found that discussed quality improvement work in healthcare with the results interpreted through the lens of the theory of practice architectures (Thorne et al. 2017). However other theorisations of practice have been used in diverse fields including technology see for example:(Feldman & Orlikowski 2011; Orlikowski 2007); science-as-practice see for example: Pickering (1990); management-as-practice see for example: Gherardi (2001);Gherardi and Laasch (2022). While the term 'practice' is common in literature, often it is not employed in a theorized way. An opportunity to bring together the literatures of CI and TPA exists to reposition the dominant ontologies of individualism and positivism. Such an approach will enable a new perspective to emerge through the reinterpretation of existing CI practices.

In sum, the distinguishing work of Kemmis and colleagues has established TPA that is an account of what practices are composed of and how practices shape and are shaped by the arrangements in which they are enmeshed in a site of practice (Mahon et al. 2016b). The theory of practice architectures is differentiated, for example, from post humanist theorisations of practice, by a focus on human agency and projects, and by acknowledging the role dispositions play in shaping practice. In selecting the theory of practice architectures, I have sought to provide a concise language for describing and interpreting the social world of CI. In using TPA, I aim to articulate how practices and practice architectures relate and how they are interdependent in a way that captures the complexity of relationships between practices and the arrangements that make them possible and hold them in place. The application of theory has been used as a theoretical, analytical and transformational resource. Researchers consider the theory to be both accessible and concise – in contrast to some other theories of practice – as a way of capturing the complexity of relationships between practices and what makes them possible (Mahon et al. 2016b). Furthermore, practice architectures are said to direct analysis towards the enactment of the practice in a site, the elucidation of the local site arrangements that make practices of a particular kind possible within the site or indeed shape variations of a practice. In the following section I will draw attention to the use of architectures of practice theory and how it has been implemented across a range of sites.

The application of architectures of practice theory to the research problem

The application of TPA as a theoretical lens enables a critical exploration of CI as a practice. It incorporates the way practices, practitioners, workers, practice architectures and sites of practices interrelate in the three types of intersubjective space:

1. semantic spaces (realised through language)

2. physical space-time (realised through activity and work)
3. social space (realised through power and solidarity)

Practice architectures, that is, arrangements existing at a site or 'ecology of practice' Kemmis et al. (2012), work to both enable and constrain the practice of practitioners, workers and managers. Language and ideas are referred to as cultural discursive arrangements; objects at a site (for example the physical layout of the office) are recognised as material economic arrangements, while hierarchy and relationships between people are referred to as social-political arrangements. These all come together in characteristic ways enacted through practice traditions, or in other words 'the way we do things around here'. In their diagrammatic representation of TPA, Mahon et al. (2016b, p. 13), the authors have used an infinity diagram to represent a kind of flow that holds together the sayings, doings and relatings of the practitioner, worker or manager with the cultural-discursive, material-economic and social-political arrangements that make them possible. It is the notion of flowing action, of iteration on a continuum represented in that representation of TPA that enables the discussion of both TPA and CI together with their embedded notions of continuity and change.

As social phenomena, practices are located in circumstances and conditions that occur in particular locations in physical space-time. Practices co-exist and are connected with one another in complexes of practices in which each adapts and evolves in relation to the others. Kemmis et al. (2012) propose that this reinterpretation is suggestive of practices behaving like living things, connected to one another in 'ecologies' of practices.

Chapter Summary

This chapter has presented practice theory as discussed in extant literature. I commenced the chapter with documenting the practice landscape and described the features of the world we inhabit where agents continuously make and remake the practices they engage in. Numerous scholars have contributed to the contemporary consideration of practice and development of practice theorisations. The work of theorists and philosophers such as Marx, Heidegger, Wittgenstein, Giddens, Bordieu and Wenger have all contributed to theoretical development both directly and indirectly. This has resulted in many theorisations each with a differing focus. Schatzki is recognised as providing an encompassing and inclusive account of practice. For example, from a Schatzkian perspective practices are a site of the social that interweaves those aspects of sociality and materiality that are arranged around shared understandings. This sees these structural elements embedded in the performance of the practice. A further repositioning of practice theory has been undertaken by Kemmis and Grootenboer (2008) and Kemmis and additional co-authors (see for example: Kemmis and Mahon 2016; Kemmis et al. 2014) that has resulted in continued development of practice theory.

While acknowledged as an evolving theory, the theory of practice architectures as presented by Kemmis and his coauthors contend practices are situated in time and space and unfold in site ontologies. This

recognises that practices are not set in stone but are continually shaped by the conditions that exist at a particular site at particular moments in time. This recognises practices are being shaped through the architectures of cultural-discursive, material-economic and social-political arrangements that exist at the site. It is these practice architectures that enable practices to gain their meaning through the sayings and thinkings that occur in the practice in its cultural-discursive dimension as it is enacted in 'semantic space', in the language of those workers who inhabit a site. The productiveness of the practice is undertaken in the 'doings' that occur in a practice in the material-economic dimension as it is enacted in 'physical time space' in the form of work/activity. Additionally the 'connectedness and solidarity' that exists between workers and objects involved in a practice is the social-political dimension that occurs in social space and in the medium of power. Power as concept within the context of TPA refers to the notion of relating to others within a practice and how this is enabled and constrained by social-political arrangements at a site. A site is a place of contestation, tension and struggle that raises questions about what is possible and acceptable as a practice.

In explanation of the connectedness between practices Kemmis suggests that practices can be understood as behaving like living things that exist in an ecology of practices, a concept that incorporates the discourse of Fritjof Capra's principles of ecology, principles of sustainability and principles of community. In the adoption of such an analogy Kemmis has sought to present practices as living systems that have the characteristic of an ecosystem.

To apply the lens of TPA enables attention to be paid to the sayings, doings and relatings of worker CI practices. To see CI as an orchestration between workers and between workers and material objects provides a shift from the predominant existing ontological positions of individualism and positivism. To reconceptualise CI as greater than a set of tools brings a unique perspective in attempting to understand how CI is being enacted in NSW local government.

The following chapter is presented in three sections. The first section considers the literature of continuous improvement and presents the work of the early quality theorists: Deming; Crosby; Juran and Imai. The second section of the chapter presents continuous improvement and how it is enacted in NSW local government, and the last section discusses continuous improvement and its relationship to learning.

Chapter 3 - Literature Review - continuous improvement

Introduction to continuous improvement literature

This chapter commences with defining what is 'continuous improvement' and reveals it as a contested concept that is reliant upon how it is implemented and enacted within an organisation. I will then discuss the contributions made by Crosby, Deming, Juran and Imai and how their work is being enacted in ways that has seen many organisations struggle to sustain early gains. I then consider the socio-cultural elements of Kaizen: Lean thinking, Lean service, Six Sigma and Lean Six Sigma, that have shown to influence how the practices associated with each method are enacted. This chapter aims to reconceptualise CI through the lens of TPA.

Defining continuous improvement

The term continuous improvement comes from the Japanese term Kaizen that was developed and gained popularity through the work of Masaaki Imai (Imai 1986). Kai-Zen is a compound work that captures the essence of continuous improvement in Kai (representing change) and Zen (meaning to improve). The CI literature is rich with definitions of what continuous improvement may be (Vinodh et al. 2021). Deming presented it as a constant and forever system of improving both products and services (Sanchez & Blanco 2014). Bhuiyan and Bhaghel (2005) contend that continuous improvement refers to initiatives that increase organisational success and reduce failures. Bessant et al. (2001) consider it to be a set of routines that can assist an organisation to improve current operations. The definitions of Bhuiyan and Bhaghel (2005) and Bessant et al. (2001) both ignore the inclusion of the notion of CI being consistently enacted, as discussed by the early theorists. A further definition is offered by Brunet and New (2003) who refer to it as continual activities, outside of the worker's contractual role, to identify and achieve outcomes to deliver organisational goals. This definition becomes problematic when CI is positioned as being outside of a worker's day-to-day work and to be something episodic that loses the dynamism of continuous ongoing improvement. Chang (2005) refers to CI as the continuous improvement cycle that includes the establishment of customer requirements, meeting those requirements, measuring success and continually referring back to those customer requirements to identify opportunities for improvement. The view offered by Chang (2005) aligns most closely with the perspectives of Crosby, Deming, Juran and Imai. Defining CI as customer focus drives an organisational culture of customer satisfaction that extends to both internal and external customer (Hanna et al. 2004; Jun & Cai 2010). Yet another definition of CI is discussed by Bhuiyan et al. (2006) who aver that it is a culture of sustained improvement that aims to eliminate waste in all organisational systems and requires the involvement of all workers. The definition offered by Bhuiyan et al. (2006) aligns most closely to Crosby's Four absolutes of quality, that is described later in this chapter. By way of contrast, Glover et al. (2013) consider CI to be a subtle and gradual approach that sees improvements made over time. This definition offered by Glover et al. (2013) neglects the ongoing nature of continuous improvement and also rejects the transformative capabilities of CI that has been called for by Crosby, Deming and Juran.

Despite the differences of each definition, areas of commonality can be found, such as the notion of constant activity, the involvement of all workers and worker efforts aimed at removal of waste and identification of new areas of improvement. In their research Sanchez and Blanco (2014) identify a need for the constant review of the concept of CI, as only a small percentage of the literature is dedicated to the theoretical development of this subject. This has seen authors challenge the theoretical differences between the terms 'continuous improvement' and 'continual improvement'. Continuous improvement and continual improvement are terms associated with business improvement, process improvement, quality management, total quality management and international standards (Singh & Singh 2015). Reber (2019) makes the argument for a distinction of the terms 'continuous improvement' and 'continual improvement'. Central to Reber's understanding of 'continual improvement' is the inclusion of "breaks in time" while the term 'continuous' "does not" (p. 18). The American Society for Quality (2020) has recorded in their glossary of terms the interchangeability of these terms where both may refer to "The ongoing improvement of products, services or processes through incremental and breakthrough improvements.". The most recent definition recognised by The American Society for Quality unwittingly increases the complexity of researching such phenomena (Sanchez-Ruiz et al. 2019). Using the terms interchangeably distances the phenomenon of CI further from its roots found in the works of Deming, Crosby, Juran and Imai, who have clearly stated that CI is more than a set of routines driven by the use of tools.

Literature recognises benchmarking studies within CI where the authors acknowledge many of the issues outlined above together with recommendations for changes to practices at both the individual and organisational levels. Such benchmarking studies have considered diverse organisations and include public health see for example:Burgess et al. (2022); Burstin et al. (1999); Reese et al. (2014);Willmington et al. (2022); education Ansmann and Seyfried (2022); Inglis (2005);Rostamzadeh et al. (2021); public service: Ali AlShehail et al. (2022); Ki (2021); Sundar and Prabhu (2019); manufacturing: Addis (2020); Farid et al. (2020); Raval et al. (2019). However despite the longstanding calls for the change to practices there is limited evidence to suggest such calls have been heeded. Indeed when undertaking a review of the literature those that discuss the notion of practices are being doing so in isolation without due consideration to way such practices interact with wider organisational practices. This notion is explored further in the following section.

Taking up the issues outlined above, Sanchez and Blanco (2014) first call for practitioners and academics alike to consider how to facilitate ongoing, continuous flow of improvement through the convergence of both perspectives as a way of enabling CI to move forward and that ensures meaning and comprehensibility to both. Secondly, the authors acknowledge there is a need to focus on the role of workers and training as a practice of human resources policy. Here, the term 'practice' is not applied in a theorized manner, and as such ignores the social-relational element of CI practices. Lastly, the authors do not extend their argument to call for critically enacted practice. To define CI as a narrow set of routines limits how it is understood and implemented in workplaces. There is a requirement for an understanding

of how it works so implementation is done in a sustainable way. The TPA recognises practices go beyond a set of routines in a way that enables a critical lens to be applied to the practices enacted across an organisation.

In the forthcoming section I outline how this is made possible. With the evidence of a shift away from the work of the early theorists, we then must reconsider the relevance of their work in today's enactment of CI. In the following sections I will present argument for the reconsideration of their work, with a particular focus on the creation of dynamism to drive 'continuous improvement' through the use of critically reflective practice.

Early influences on CI methodologies

Scientific Management

The foundations of CI hail from American companies in the 1800s. Frederick Taylor and Frank Gilbreth applied scientific management to labour standards, work measurement and the study of interaction between people, processes and machines (Gibson et al. 2016). The application of the scientific method became known as Taylorism. Scientific management resulted in the standardisation of work that enabled processes and roles to be clearly documented. This improved process efficiency and reduced waste of materials and labour (Urick et al. 2017). Importantly, despite being a powerful tool for production managers, the scientific management approach did not address the "disenfranchisement and de-skilling" that the Industrial Revolution was bringing about (Schroeder & Robinson 1991, p. 69). The aspect of scientific management most criticised was the extreme division of labour and separation of thought from action (Caldari 2007). Taylorism saw the move from handicraft workshops and the use of artisan methods to standardisation of processes, with workers being considered to be nothing more than an "appendage of machinery" Caldari (2007, p. 61) as they were no longer relying on their craft skills to produce items. The National Cash Registers Company pioneered improved working conditions through the provision of a written employee suggestion program (Bhuiyan & Bhaghel 2005; Vinodh et al. 2021). By empowering employees to resolve work-based problems with minimal intervention by management, or before management knew there was a problem, Nelson (1974) provided an opportunity for staff to gain some control over their work once again, which was a small step towards the enactment of critical praxis.

Taylorism and scientific management was the enactment of the mechanistic paradigm, that witnessed work undertaken in a controlled manner to increase process efficiency. However, these gains only benefitted the industrialists while workers lost the opportunity to develop their craft and had little influence over how work tasks were carried out. These new practices of work had stripped the artisanal qualities out of the practice. This enforced change to worker practices also saw a corresponding withdrawal of the motivation and purposefulness of undertaking the task. The teleology of their practice had become lost. (The place of teleology in practice is discussed later in this chapter). As the names

suggest, the mechanistic approach is characterized by a top-down approach with very low levels of empowerment existing. The authority to act is situated with an individual's position in the hierarchy, quality is compliance driven, performance is measured in terms of outcomes only, there is little scope for learning and innovation and, unsurprisingly, employee engagement is low (Brown 2014).

As organisations have sought to improve the quality of their goods and services the influence of Phillip B Crosby, W Edwards Deming, Joseph M Juran and Masaaki Imai have had on industry cannot be overstated. Crosby is recognised for his concept of zero defects. His approach centered on a system of prevention. A top-down approach of control, that contained many elements of the mechanistic paradigm, is evident in Crosby's approach to quality. For example, elements of conformance, standardisation, and the unacceptability of errors are all parts of the discourse of Crosby's approach (Crosby 1989; Nielsen 2004). Moreover, to enact the practices espoused by Crosby we can identify the role of criticality through his identification of the need to prevent errors, which delivers a clear message to all workers. The approach of Deming differed from that of Crosby in many ways. The Deming cycle of PDSA acted more as a framework which could be incorporated into all workplaces. Deming understood the existence of a relationship between a worker and a customer that was considered revolutionary at the time. This notion of both worker and customer as part of the production system acknowledges the existence of both internal and external customers for the first time. Inherent in Deming's work are social-relational elements that were not acknowledged by Crosby (Chiarini 2011; Deming 1986). The notion of critical reflective practice is inherent in the PDSA cycle espoused by Deming; as workers cycle through the steps they each ask themselves, 'how can this be done better?'. Joseph Juran is acknowledged as influencing quality management through the enactment of his principles by management. He placed the responsibility for the success of a quality program in the hands of managers. This may have seen these principles of control enacted in ways evident of the mechanistic paradigm. However, there are other elements within Juran's approach - for example, the need for communication, training, reward, and recognition of workers - that would not be understood as being part of the mechanistic paradigm (Stalker & Burns 1994). The alternative to the mechanistic paradigm is the organic paradigm (Stalker & Burns 1994). Defining features of the organic paradigm include a values-driven approach to decision making, high levels of empowerment, quality is aspirational, performance outcome has a foci of improvement to processes and systems, organisational change becomes normalized and workers response is one of agility, levels of learning and innovation are high, as too is worker engagement (Bisgaard 2008; Juran 1992, 1995; Stalker & Burns 1994). Imai recognised the critical nature of both worker and top management coming together in CI. The inclusion of these elements of empowerment and decision making by Imai and Crosby are but a few indicators of the place both saw for critical praxis in the enactment of CI practices. In this brief summary of the key ideas of the early quality theorists it is possible to identify the centrality of adopting a critical disposition.

In this section I have positioned scientific management as the enactment of practices most readily associated with the mechanistic paradigm. The mechanistic paradigm is characterised by a top-down approach, quality is compliance driven and employee involvement in decision making is low. Statistical

process control (SPC) is a set of practices situated within the mechanistic paradigm (Brown 2014). In contrast, the organic paradigm emphasises the empowerment of workers that sees them actively engaged in decisions pertaining to their work. Workers' knowledge is recognised and valued and is used to improve work processes. Quality of processes is achieved through worker connection with the organisational vision. The whole of organisation approach to quality, such as the Australian Business Excellence Framework (ABEF), is a CI approach situated in the organic paradigm (Brown 2014).

In the following section I will present a précis of the contributions of Crosby, Deming and Juran to CI literature.

Phillip B Crosby

Phillip B Crosby has been internationally recognised for his work in popularizing 'zero defects' Tuominen (2016) that originated in the United States at the Martin Marietta Corporation in the 1960s . To Crosby, quality meant conformance to requirements (Nielsen 2004). For Crosby quality was either present or not present and there was no such thing as differing levels of quality. The role of management, according to Crosby, was measuring quality by the constant tracking of non-conformance. Crosby's approach focused on 'doing it right the first time', an approach that stressed that quality was achieved through prevention, not detection and testing. He believed management created many problems through its attitudes and practices in terms of what is rewarded and supported in an organisation (Tuominen 2016). By way of example, if meeting deadlines is reinforced over quality, then deadlines will become the focus of workers.

Crosby's four absolutes of quality management

Crosby identified four absolutes of quality management that he considered to be the core of quality improvement. First, Crosby recognised quality as conformance to customer requirements. The role of management is to communicate clearly these customer requirements and assist workers by providing training, fostering a climate of co-operation and leadership. The system of quality is prevention. Management must consciously commit to eliminating errors before they arise. The performance standard is zero defects. Managers must do everything to assist workers in the pursuit of 'do it right the first time'. The measurement of quality is the price of non-conformance. Crosby considered non-conformance a management tool for diagnosing an organisation's efficiency and effectiveness.

To assist management implement his quality improvement process, Crosby identified a further 14-step approach consisting of activities that involve both management and workers. Crosby's 14-step approach addresses prevention rather than inspection and correction of errors. Crosby's position on preventative action involves thinking, planning and analysing processes to anticipate where errors could occur and the taking of action to keep these from reoccurring. His prevention process commences with establishing the product or service requirements, developing the product or service, gathering data, comparing the data to requirements, and taking action on the result. The overall approach of controlling defects advocated by Crosby can be recognised as being situated predominantly in the mechanistic paradigm.

W Edwards Deming

W Edwards Deming is best known for leading post World War II Japanese businesses on the course that has seen them globally recognised as leaders in quality and productivity. Recognition of Deming's method of quality improvement came late in the 1980s in the United States. Deming asserted that the quality of a product or service can only be defined by the customer and as such quality is a relative term that will change in meaning depending upon the needs of the customer (Deming 1986). Bisgaard (2008) contends that Deming's focus was primarily philosophical and strategic whereby his significant contribution to the literature has been the education of top management in the criticality of quality in a competitive economy. The work of Deming sets the stage for initiating quality efforts in an organisation (Bisgaard 2008).

In transforming an organisation, Deming characterised the roadblocks that are encountered as 'deadly diseases'. These 'deadly diseases' were said to afflict most Western organisations. The deadly diseases are recorded as: lack of empathy, emphasis on short term profits/thinking, evaluation of performance/merit ranking/annual review, job hopping by management, management by use of visible figures only, excessive medical costs, and excessive costs of liability (Deming 1986). To remedy the 'diseases' Deming prescribed his 14-Points, or obligations that he understood to apply to any organisation regardless of the size or type of business. He also identified the obligations as management's responsibility that cannot be delegated. Noteworthy is how Deming saw the role of management to be aware of the differences between people and use these to optimize performance (Chiarini 2011). It is this element that enables Deming's work to be situated the organic paradigm (Stalker & Burns 1994). Foregrounding the role of workers in CI differentiates Deming's approach to that of Crosby and Juran.

Deming's concept of continuous improvement is illustrated by the Shewhart Cycle of plan, do, check, act. This was later reworked by Deming during his work in Japan to become plan, do, study, act (Linderman et al. 2003; Matsuo & Nakahara 2013). This framework establishes improvement will be effective if a good plan (P) is established, the activities required to achieve the plan are done (D), the results are studied (S) to understand progress, gains and losses are assessed and decisions on further actions (A) are taken to improve (Dahlgaard et al. 1995; Deming 1986). Deming's schema underpins the introduction of other CI systems and is considered common to most CI methodologies (Cheng 2008).
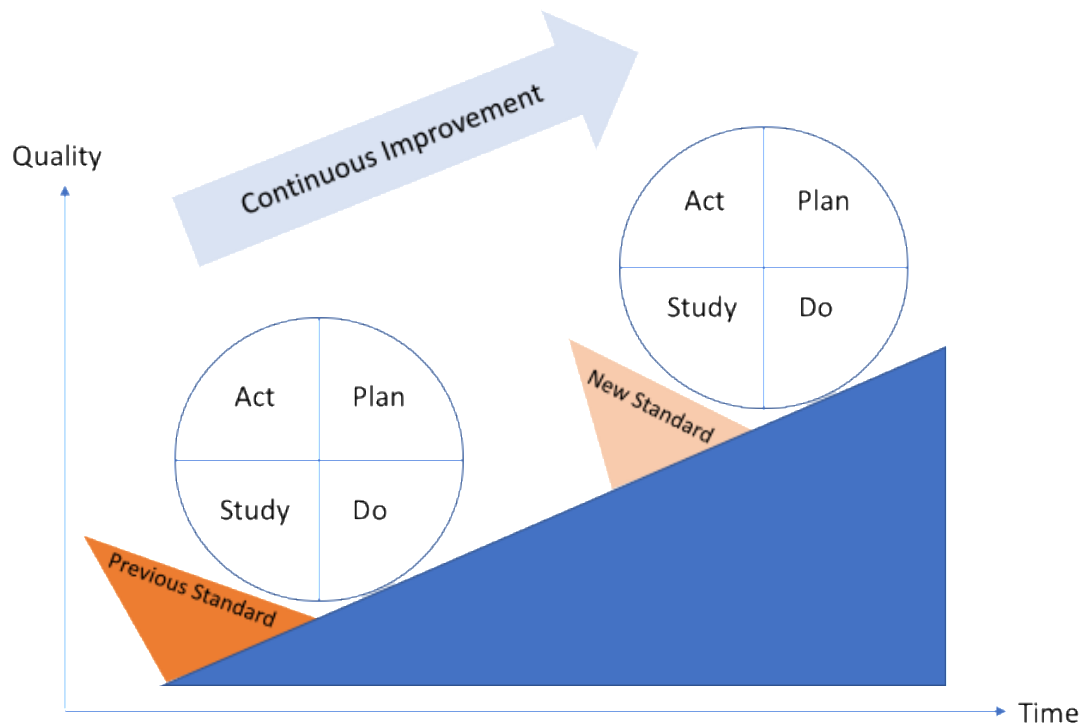
Figure 1 Deming cycle Moen & Norman (2009)

Figure 1 emerged through the work of Walter A Shewhart and W Edwards Deming in bringing the scientific method to 20th century industry. In his initial iteration, Shewhart's concept was a three-step linear process of specification, production and inspection. This was later revised and became a cyclical concept. Deming modified the concept further to stress the importance of constant interaction of the four steps of design (product design corresponds to the planning phase of management), production (working on the product that was designed), sales (study of sales figures to confirm customers are happy) and research (if a complaint is received it must be incorporated into the planning phase and action taken in the following cycle) (Moen & Norman 2009). The cyclic nature of the diagram acts as the precursor for critical reflection in the quality movement.

Joseph M Juran

Juran defined quality as fitness for use, a definition that saw a strong orientation to meeting customer expectations. His notion of a customer included anyone affected by the product. This group included those who dealt with the product in the development stages, considered to be internal customers, and those who dealt with the finished product, the external customers (Stephens & Juran 2004).

Juran is credited for having developed most of the concepts and theory behind what is recognised as cost-of-poor-quality (COPQ). Notwithstanding the contributions of Feigenbaum and Crosby to this conceptual area, Juran's work remains comprehensive and has had a lasting impact. Juran defined COPQ as the sum of all costs that would disappear if there were no quality problems. Juran preferred to communicate

concepts such as the cost of poor quality in monetary terms to justify the implementation of quality programs (Bisgaard 2008). Juran's foregrounding of managing costs and controlling quality through strict adherence to rules situates his work within the mechanistic paradigm.

Juran's Quality Trilogy consisted of three functions: quality planning, quality control and quality improvement. Quality planning was concerned with determining who are the customers and further classifying customer segments (Tallentire et al. 2019). Juran's approach included the development of metrics and control mechanisms in this planning stage, together with the provision of training in the delivery processes (Bisgaard 2008). Juran included a need to plan for control, that is, developing an understanding of what needs to be controlled as determined by the customer requirements (Kiran 2017a). Further, Juran contends quality control involves the executing of control, comparing outcomes to goals and taking action on discrepancies (Kiran 2017a). Critical reflection was a key element of Juran's quality control function. Juran's perspective of quality improvement involves the establishment of infrastructure for improvement, the identification of improvement projects and the establishment of improvement teams (Bisgaard 2008). In addition, Juran contends that these teams require resources, training and motivation to complete the project. In his view, Juran argues the work of diagnosing root causes, the finding of remedies, and the establishment of controls to institutionalize and hold on to gains was the role of quality improvement. In his work Juran was adamant that improvement projects were continuous where the use of measurement indicated where attention need to be directed. Thus, it has been established that Juran's work is situated within the mechanistic paradigm, however through acknowledging the need for workers' involvement, training and need for communication we can also identify the organic paradigm within Juran's work. This shifts the existing notion of the dichotomy of CI situated in one of two paradigms. When reconceptualizing Juran's work through the lens of TPA it is possible to locate both hard and soft practices coexisting Ali and Johl (2021). However, the terms hard and soft practices used by Ali and Johl (2021) are employed in an untheorized way. Schatzki (2006) reconceptualises hard and soft practices as 'bundles' of practices which come together in a continual dance of prefiguration and open-endedness (Schatzki 2012). Prefiguration conceptualizes how the local arrangements (practice architectures) enable the enactment of the 'hard' and 'soft' practices of CI likely. Open-endedness is understood in the continuous way practices shift and change over time, again in response to the arrangements at the site and the influence of the practice in shifting and changing the site architectures.

Masaaki Imai

The literature pertaining to Masaaki Imai's contribution to CI centers on his coining of the term Kaizen (Suárez-Barraza et al. 2011; Vinodh et al. 2021). The term was used and popularised by Imai to represent continuous improvement involving everyone, managers and workers alike (Carnerud et al. 2018; Suarez-Barraza et al. 2019; Suárez-Barraza et al. 2021). Imai's philosophy of CI highlights the 'continuous' nature of improvement; one that evolves through several levels. Imai (1986) advises that Kaizen is a CI process involving all employees, both managers and workers. Kaizen is recognised as including small changes in routine that are written up in standard operating procedures, changes in production,

improvements, and delivering artifacts such as tools, equipment and time/motion studies (Imai 1986). Undoubtedly, the addition of value to products and/or services is inbuilt in the action of Kaizen. Creative solutions and low-cost applications normally start with workers. Kaizen centers on identifying problems, their root causes, the solutions that must be implemented, and the change in standards and operational methods required to ensure that the problem does not occur again. Root cause analysis is key to the success of not only Kaizen but all modes of CI; however it was Imai who foregrounded the significance of problem-solving approaches (Imai 1992a). The asking of 'why?' five times is an often-used tool/technique of problem-solving (Imai 1992a; Kregel 2019). In his work, Imai describes the use of standards of work, the use of documentation such as standard operating procedures, and a strict delegation of tasks across the shop floor. Simultaneously, workers are also engaged in reflecting upon work-based problems and solving them. For example, was the current standard inadequate? Why did this happen? Did this happen because workers need training? (Imai 1992a). One cycle of problem-solving is the trigger for the next as results continue to be monitored. While the use of standardized actions and delineation of roles is clearly situated in the mechanistic paradigm, we are also able to see elements of the organic paradigm in the use of reflective practice and, furthermore, workers engaging in a dialogue about their own praxis when conceptualised through a lens of TPA.

The term 'Gemba' means the place where the action takes place in the Japanese language (Imai 2012). For example, in a library this may be a desk where books are being checked in, checked out, questions answered, or books collected. TPA recognises this as the practice site. 'Gembutsu' means something that can be touched such as the enquiry desk, or library shelves (Imai 2012). Though not expressed in Imai's work as such, the inclusion of site and materiality is reflective of the work of both Schatzki (2002; 2005b) and Kemmis et al. (2012), who acknowledge the materiality of practice and the happenstance of how a practice unfolds at a site resultant from the conditions of practice that exist.

The pioneering work of Crosby, Deming, Juran and Imai is the DNA of all other methods of CI in use today. Embedded in their work is the notion of critical reflection, that is, the approaches are continuous where one cycle leads into another and so on where there is a requirement to reflect on the outcomes and develop ways to overcome obstacles in the following cycle of improvement. The practices that exist in each cycle of improvement we now know to be open-ended and prefigured resultant from the practice architectures existing at the site. It is the call for the constant improvement of the way we undertake our practices by the early theorists that foregrounds praxis in a discussion of CI.

Social influences

Crosby, Deming, Juran, Crosby and Imai all recognised that CI is both a top-down and bottom-up approach that acknowledges the centrality of workers to the chosen approach. Such positioning of the sociality of CI is mirrored in the work of Schatzki. By practices, Schatzki (2005) refers to organised human activities such as management practices, shop floor practices, and library practices. In defining organisations as "a bundle of practices and material arrangements" Schatzki (2006, p. 1863) goes some way to explaining similarity in organisation practices across industries, for example NSW local

government. This conceptualisation may of course lead to isomorphism across similar organisations that may see practices enacted in rigid and constraining ways (Zhao et al. 2017). Schatzki (2006) conceptualizes such "rule following" as an example of "practice memory" Schatzki (2006, p. 1868), where the continued performance and identification of actions and interactions results from the legacy of past knowledge that has accumulated across the organization, and that has in turn provided the organisation with its identity. However, such a stance does not explain organisational transformation and the influence of what Battilana et al. (2009, p. 334) refer to as "institutional pressure on actor's behaviours". The complexity of the environment in which organisations are required to act and adapt to is reflective of human cultural activity (Boisot & McKelvey 2011). In such a system workers communicate, interact with one another and their environment and then adjust their behaviours accordingly. The TPA recognises this notion as practices being prefigured not predetermined (Kemmis 2010).

The socio-culture narrative has pervaded the CI literature where, for instance, the differences in the approaches and overall sustainability of CI in how it is enacted in Eastern and Western cultures have been explored. The cultural value of CI has underpinned Japanese society for hundreds of years. This underscores how critical an element socio-culture has been in the success of CI in Japan. This view is congruent with that of Dahlgaard-Park (2000) who considers the Japanese custom of improvement as being associated with the dominant religions of Japan. The introduction of CI practices into Japan resonated with the socio-cultural position of its population. Zairi (2013) avers that Western scholars including Deming (1986), Juran (1992) and Crosby (1989) all achieved success in Japan with their various CI practices that had previously garnered mixed attention in their native United States. Imai's contribution to both Western and Eastern cultures of CI cannot be underestimated. Sharing practices from the Japanese culture that flow continuously across all the activities of Kaizen has brought a different approach to CI than Crosby, Deming and Juran (Alvarado-Ramírez et al. 2018; Aoki 2008). However, within Kaizen we also find evidence of the teachings of Crosby, Deming and Juran. Kaizen has shifted from an understanding of how improvement is viewed through Eastern cultural tradition to being recognised as a methodology of CI enacted globally (Suarez Barraza et al. 2012; Suarez Barraza et al. 2009). In this section I have provided examples of how the existing CI literature has accounted for influences that enable and constrain worker practices; the predominant understanding is that of 'culture'. However, TPA recognises this phenomenon as architectures of practice that affect how practices unfold at a site and, in so doing, offers a theoretical lens to analyse practices.

Chiarini (2011) reflects upon Deming's success by acknowledging that the pre-existing socio-political order and arrangements in Japan at that time were amenable to the quality and continuous improvement narratives. Additional researchers - see for example: Prasad and Tata (2003); Zairi and Alsughayir (2011) and Liu and Almore (2016) - discuss how Eastern or Western socio-cultures influence how as individuals we consider, analyse and respond to uncertainty in the organisational context. In Eastern cultures people are said to perceive themselves as more connected and an interdependent part of the social context, not separate or an independent person as in Western culture (Liu & Almore 2016). Eastern cultures are said to

tolerate or accept uncertainty, whereas Americans seek to reduce it (Liu & Almore 2016). This evidence supports the success of the methods of Deming, Juran and Crosby within Eastern cultures. The methods of CI they brought with them aligned with the socio-culture of Japanese society that acts as practice architectures as it determines what practices are possible and how these unfold in both wider society and the workplace. In the globalisation of CI methods, the pre-existing socio-culture influences the organisational cultural-discursive, material-economic and social-political arrangements at a site (Kemmis & Mahon 2016). The diffusion of socio-culture into worker practices is seen as the influence of the architectures of practice that determine how their practices are produced and reproduced to result in an ecology of practices unique to each site and has given rise to new and developing methods of CI such as Kaizen and Lean Six Sigma.

In the following section I will demonstrate the synergy between the work of the early CI theorists and the TPA. While not necessarily using the same terms we encounter in the Practice literature, the sentiments are very much complementary. While synergies may exist it is my contention that it is the reconceptualisation of CI that best serves the needs of organisations in their attempts to achieve and sustain long term CI gains.

Reconceptualising CI and the Theory of Practice Architectures

Having introduced practice theory in Chapter 1, in this section I will present the synergies that exist between the work of the early theorists of Crosby, Deming Juran and Imai and the TPA. The early theorists contributed significantly to the CI body of knowledge and this is illustrated in the outer frame of the following diagram. Their individual contributions are rich in guiding principles that literature has recorded as often being applied in a decontextualised, episodic manner or indeed ignored. As a consequence there are numerous case studies of the short-lived nature of CI efforts. Contributing to this phenomenon is the interchangeability of the popular terms 'continuous' and 'continual'. As the early theorists have asserted, improvement is 'continuous', cyclic in nature and continues in a flowing manner from one project to form another that invokes a call to praxis. This research has sought to bridge the ideas conceived by these early theorists and reconsider it through the lens of the TPA with the view to foregrounding praxis through the enactment of critical reflection as recognised by Crosby, Deming, Juran and Imai. While the terminology of the early theorists differs from the discourse contained in the work of Kemmis et al. (2012) and Mahon et al. (2016b), synergies do exist when discussing these theories together. This is identified in the intersection of all four circles. In the following section I draw out these synergies.
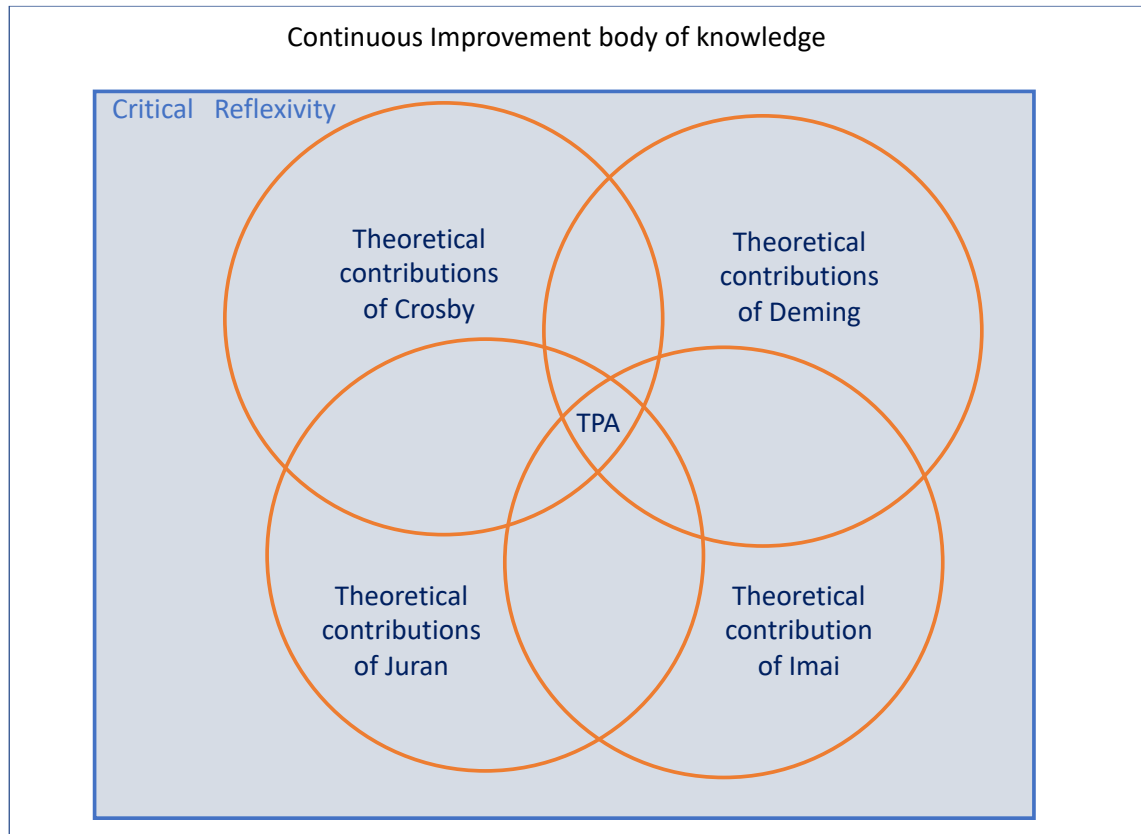
Figure 2 Re-envisioning the work of Crosby, Deming, Juran and Imai through the lens of TPA

Figure 2 represents the synergies identified when considering the work of Crosby, Deming, Juran and Imai and the TPA. The following section situates the individual contributions of the early theorists in TPA.

Practices of CI are ongoing

Practices are ongoing in nature and contain a flow that hold together the sayings, doings and relatings with the cultural-discursive, material-economic, and social-political arrangements that make them possible. The work of Mahon et al. (2016b) recognises the continuous nature of practice through "the use of the infinity symbol" (Mahon et al. 2016b, p. 13). Contained within TPA is the understanding of the influencing nature of the architectures existing at a site and how practices unfold, and, importantly, that practices also influence the architectures at the site. It is this flowing movement that is also identified in the work of Crosby, Deming and Juran. Crosby reminded his audience of the continuous nature of improvement through the invocation to 'do it over again' in his 14-Points of quality improvement. Furthermore, within his four absolutes we also find reference to the ongoing nature of CI as expressed through his urging to pursue zero defects; a constancy of purpose by working with customers to understand and deliver their requirements, focus on the removal of errors (if and when these appear) and using the measurement of non-conformance to drive the next project of improvement. Deming's

significant contribution to the ongoing nature of CI can be found in the PDSA cycle where workers move through each stage and, upon the final stage of 'Act', a new cycle of improvement is commenced. Underpinning the Deming Cycle is the forward movement of purpose to meet customer needs as they shift and change over time. This is noted as the first of Deming's 14 Points. Developing a growing range of skills and experience through participating in CI projects provides a strong foundation for the following group of projects. New CI project ideas drive the dynamism of continuing engagement of workers in the improvement cycle that in turn becomes an iterative cycle of continuous learning and improvement.

Teleo-affective nature of CI practices

In his description of the sociality of practice, Schatzki (2002, 2006) makes reference to the teleo-affective features of practices that describe why things are done and takes into account the values, beliefs and hopes which influence the way a practice proceeds, and how it is thought about within collective practice. The term 'telos' refers to the aim, project or guiding purpose of practice (Kemmis & Smith 2008a). Contained within the definition of the 'project' of a practice is the all-encompassing intention or aim that motivates the practice, the interconnected sayings, doings and relatings that are undertaken in conducting the practice, and the ends the worker aims to achieve through the practice (Rönnerman & Kemmis 2016). With telos being considered the aim of the project, the teleo-affectiveness of the practice draws the distinction between practices and activities Schatzki (2010). According to Schatzki (2010, p. 51) practices maintain a teleo-affective structure that "comprises acceptable or prescribed ends, acceptable or enjoined projects to carry out those ends, acceptable or prescribed actions to perform as part of those projects – […]". This is what gives practices their distinct character. For example, the practice of librarianship has a distinctive character that differentiates it from the activity of shelving returned books. One does not need to study librarianship to be able to complete the activity of shelving books, however, the numbering of the books and identifying the specific space they must occupy in the library requires the practice of librarianship to complete it. The use of the Dewey Decimal System comes with its own unique sayings, doings and relatings that come together in the practice of librarianship.

Crosby includes the teleo-affective nature of CI through his 'Six C's' which, when taken together, become a powerful force for dynamism of improvement work. The Six C's comprise: *comprehension*, where all workers must understand the importance of quality; *commitment* of top management to provide the resources necessary for improvement; *competence* in the use of quality methods; *communication* and sharing of wins with all staff; *correction* of errors and improving performance, and *continuance*, which emphasises the process of quality as a way of life in the organisation. Within Deming's 14 Points are the elements that influence the teleo-affective attributes of his theoretical approach to quality. For example, Deming commences with a clear statement to top management that their role is to create constancy of purpose toward improvement of product and service (Swartout et al. 2015). Furthermore, in his positioning of the role of all workers to contribute to the quality program, Deming is clearly stating that the quality program has purpose and recognises that it acts as a vortex generating improvement practices.

Deming makes a clear argument within his 14-Points for the teleo-affective nature of his conceptualisation of quality. Juran positions top management as holding the responsibility for motivating workers to constantly strive to remove defects from their work, and clearly establishes the role of workers in the building of quality and the improvement of quality. He foregrounds the essential role of the worker in building-in quality and considers that the role of top management is to acknowledge that quality is important to workers and management. Both groups can contribute to quality; management will support workers in their efforts by providing the resources that workers need; communication must be two-way; the voice of the worker is integral to the improvement program. It is the attention paid within Juran's work on engagement with worker's contribution and the provision of resources for their work as indicators of the purposeful nature of engaging in CI that give it its teleo-affective nature. Imai identified the telos of Kaizen when he states, "it is everyone's job to improve upon what he or she is doing, where improvement means finding a better way of doing the job and improving the existing standard." (Imai 1992a, p. 71). In such a pronouncement, Imai foregrounds the role of workers in contributing to the ongoing improvement of goods and services under production. Both Kemmis and Schatzki recognise this as the teleo-affective element of the practice to be undertaken by workers. Moreover, Imai's axiom of "Don't get it, don't make it, don't send it" (Imai 1992a, p. 71) is a clear statement that draws attention to the determination of achieving zero defects – that necessitates a consciousness of effort from workers who are called to build quality into their individual work processes.

In viewing the project of a practice as encompassing the aim or intention that motivates the practice, the actions (interconnected sayings, doings and relatings) undertaken in the conduct of the practice and the ends the worker aims to achieve through the practice encapsulate the teleo-affective nature of CI that is recorded in the works of Crosby, Deming and Juran. As local government and the public sector have adopted CI with the aim of delivering efficiency and effectiveness of practices, the way this has impacted worker practices has ultimately resulted in the use of CI tools that have stripped away the teleo-affective nature of practices. Thus, what we are able to observe in NSW local government are indeed activities, not practices.

CI practices are inclusive of critical reflection

The role of critical reflection in practice is a reinforcing feedback loop (see for example Senge, 1990). Chapter 4 is dedicated to the understanding of the various notions of learning understood in the context of CI practices, one of which is reflection. In this section I discuss the practices of reflection as it provides the teleo-affective means to CI practices enacted in organisations. It is my contention that when CI is enacted in a decontextualised manner it removes the reflective practices that are evident in the work of Crosby, Deming and Juran. In removing critical reflective practice, the opportunity to learn is limiting to both the organisation and the worker. This, I believe, removes a further teleo-affective element that goes some way to explain the unsustainability of CI in many organisations. In Chapters 7 and 8 of this thesis, I discuss these elements in greater detail.

The teleo-affective nature of CI projects becomes apparent through the use of critical reflective practice. Inherent in the work of Crosby, Deming and Juran is the constant revision of progress toward meeting customer requirements through practices of planning, quality control and quality improvement. Deming's PDSA is an example of the use of critical reflection embedded in CI. The early theorists made clear that the pursuit of quality is a continuous effort, therefore improvements projects are open-ended with no starting and ending dates. This constant cycle of reviewing outcomes and considering ways to address any shortcomings can be compared to critical reflective practice. Critical reflection is recognised as the need to question our natural assumptions and attitudes that include our habits as well as our prejudices (Cunliffe & Jun 2005). The constancy of purpose recognised by Deming and his colleagues is recognised in the critical reflection literature, where for example Cunliffe and Jun (2005) suggest that engaging in critical reflective practice is a way to act in more critical, responsive and ethical ways and that doing so works to change traditional ways of doing things (Clayton 2013; Cunliffe 2009; Hibbert 2012; Ng et al. 2019; Warburton 2016). Crosby, Deming and Juran shared similar views on the positioning of customer requirements as the catalyst for driving the organisation's response to these needs in a critical and ethical manner.

In this section I have argued that, when viewed through the lens of TPA, the work of Crosby, Deming and Juran has synergies that enable comparisons between these diverse literatures to be discussed together. I have outlined how the early quality theorists discuss CI as a theorized practice, though using a differing discourse. When CI is enacted in ways that ignore the material-economic, social-political, and cultural-discursive conditions present it introduces CI in a decontextualised manner that limits the potential for the continuous flow of improvement across the organisation.

In the following section I focus on methods of CI including Kaizen, Lean thinking and Six Sigma, and critique these from the perspective of the TPA.

Revisiting continuous improvement through the lens of the Theory of Practice Architectures

Continuous improvement as discussed encapsulates numerous contributions in how we think about doing things better within organisations. The intention of scientific management was the enactment of practices without variation and at speed that resulted in the manufacture of goods at an affordable price to the community (Urick et al. 2017; Warner 1994). This is recognised as Taylorism (Taylor 2003) as it was Frederick W Taylor who popularised these methods through worker practices in his factories. In this model, workers were subject to working conditions not seen previously, instead of undertaking individual artisan practices often learnt through an apprenticeship with a master. It could be argued that individual learning occurred when a worker was able to repeat those tasks with greater efficiency, though individual learning was never a consideration for those organisations practising scientific management at the time of Henry Ford and his contemporaries. Scientific Management was noted for the one-way flow of information from the top to the bottom. As workers were considered no greater than an appendage to a

machine it is clear the social-political arrangements in place had established the balance of power with the factory owner. The pre-existing conditions and arrangements at each site worked to constrain worker practices to the extent that it resulted in industrial action until the factory owners made changes to these conditions and arrangements and workers finally had some input into their work practices. Some factories introduced the practices of an employee suggestions scheme. At this time we start to see feedback loops in operation, with information now being moved in both an up and down manner within an organisation. These workplace changes, or shifting of new architectures of practices, saw new practices of communicating, working and relating to others naturally emerge. This demonstrates the evolutionary nature of practices located within a site.

Kaizen practices of CI were developed in Japan by the Japanese. Kaizen is founded upon Eastern cultural traditions that recognises a set of personal values that makes a person grow, therefore it is considered a way of life that includes our work life, social life and family life, and emphasizes the constant attention one must pay to improving each facet (Suarez-Barraza et al. 2019). Within Kaizen we can observe the Eastern approach of connection and interdependence as discussed by Liu and Almore (2016). Kaizen differs from the approaches of scientific management through a practice lens in the recognition and enactment of social-relation practices and the understanding that practices must shift and change and be renewed constantly. In borrowing from Deming's PDCA, Crosby's process efficiency goals and Juran's drive for customer focus, we can discern the practices from all these methods brought together with an Eastern cultural influence under the banner of Kaizen.

Lean thinking employs Kaizen principles in the delivery of improved process efficiency and effectiveness. However, it differs in having a unique set of goals. These are identified as: improvement in quality through problem-solving, improved visual management, increased efficiency through standardization, facilitating of team management by the use of clear work instructions, problem elimination by employing root cause analysis, reduced space, total company involvement, a safe work environment, and improved employee morale (Antony et al. 2016). Though many organisations have adopted Lean Management (LM) as their improvement strategy of choice it has been criticised for its tool-based approach (Gupta et al. 2016), since in focusing on the application of tools an organisation is foregrounding the application of those various tools while simultaneously backgrounding other practices such as the necessary social-relational elements. Dahlgaard and Dahlgaard-Park (2006) support this stance in their discussion drawing attention to the shortcomings of an organisational strategy that is driven by efficiency and effectiveness measures. This downward pressure on workers and their practices is reminiscent of scientific management. Crosby, Deming and Juran clearly understood the role of managers and workers in delivering CI. Their individual approaches were social-relational in nature. Their contributions acknowledged that organisational success was to be achieved through establishing site arrangements that enabled workers to undertake their work practices in such a way that they found purpose (telos) in their actions and pride in the outcome. To adopt a tool-based strategy of CI decontextualises the approach and leaves workers looking for the purposefulness in the adoption of these tools and uncertainty as to how such an approach can add value? I discuss this decontextualised approach in greater detail in Chapter 6.

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Six Sigma combines human and process elements of improvement. With a focus on reducing process variation, Six Sigma employs a number of statistical methods (such as those first discussed by Juran, Crosby and Deming) to drive down process variation. When adopted these methods have resulted in production of high-quality goods and services that are the pathway to achieving an organisational competitive advantage. Antony (2006) has described the benefits of implementing Six Sigma and its ability to situate strategy on the achievement of measurable and quantifiable financial returns, thus improving the bottom line. It is for this reason large scale manufacturers have adopted such a strategy. The successful deployment of such a strategy necessitates strong and passionate leadership that requires ongoing support. The focus on financial returns results in a set of practice architectures that will enable and constrain how the practices at the site unfold. Such an approach foregrounds the strategy and ignores the role of the worker and their practices. Crosby, Deming and Juran were clear in their theoretical contributions: the role of top management is to provide the 'resources' for workers to be able to achieve organisational goals. Furthermore, they cautioned against the use of targets and performance reviews, as these would ultimately result in focus shifting to their achievement. The lens of the Theory of practice architectures enables the reinterpretation of 'resources' to include moving to practice architectures that support teleo-affective practices that can be observed through the doings, sayings and relatings across the breadth and depth of the organisation. The unintended consequences of driving a singular focus financial improvement strategy removes the teleo-affective nature of improvement that has workers asking 'what is in this for me?' This unintended consequence of a financial focus has impacted negatively on the sustainability of a Six Sigma strategy and this has been documented as being a significant challenge to organisations (Arcidiacono et al. 2016). In adopting a practice stance, other ways of enacting SS become apparent that can influence the sustainability of it.

Sustaining CI through developing praxis

The development of praxis requires opportunities for professional action and reflection on experience and the locating of the practice traditions within an individual's practice (Kemmis & Smith 2008). This necessitates the adoption of a critical perspective to contemplate not only how things currently are but possibilities of what and how these might otherwise be. Transformation *can* be achieved through a shift in disposition. Kemmis & Smith (2008) have identified three dispositions of: *epistëmë, technë*, and *phronësis* where each of these can develop differing forms of action. The first of these dispositions - *epistëmë,* or the disposition to seek knowledge or truth for its own sake is guided by the telos of attaining truth (Kemmis & Smith 2008a). An example of *epistëmë* is the practitioner that studies the works of the early quality theorists with a view to developing a personal theory of CI related to the traditions of CI thoughts and actions. The second disposition - *technë*, is to act in a true and reasoned way according to the rules of a craft, guided by the overall aim or telos of making or producing something. The disposition of *technë* is often observed in those that enact their role in a rule-following manner. For the CI practitioner an example would be the development of the problem statement using one of the CI tools, such as 'Five Whys'. The distinctive form of action associated with *technë* is *poiësis* (Kemmis & Smith 2008a). An example of *poiësis* for the CI practitioner is the skills to teach others how to develop a

problem statement using the most appropriate CI tool. The third disposition is *phronësis*. *Phronësis* is the moral disposition to act wisely and prudently with goals and means always open to review. *Phronësis* is guided by the general aim (telos) of wise and prudent judgement, that is, 'doing the right thing'. However, Kemmis and Smith (2008a) contend that *phronësis* is more than following a given rule or social norm, rather it refers to the action that will be seen later as being good for both individuals and humanity. *Phronësis* is the type of reasoning that guides the CI practitioner to think as a practitioner. The distinctive action of *phronësis* is praxis. Praxis is the 'doing' that involves practical reasoning about what is right and proper to do in a given situation. Praxis is inclusive of critical reflection where the CI practitioner considers unproductiveness and unsustainability of actions and approaches (Kemmis & Smith 2008a). The connection between reflection and practice emerges in a symbiotic manner that understands that reflection as an action informs and transforms one's practices of CI (Russell & Grootenboer 2008). The place of critical reflection is necessary for the continuous flow of CI that then enables sustainability of it in an organisation. Praxis-orientated CI practitioners purposely and consciously act on the information they have assembled by critically reflective practice. This is evidenced in their actions of problem-solving, adjusting and learning from their practice and reconceptualizing their practice. Outside of TPA, though not specifically called praxis, the notion is reflected in the teachings and methods, such as PDCA, of the early quality theorists as described earlier in this chapter.

Following is a table denoting critical articles pertaining to the notion of a praxis-oriented approach that complements the above section:

Title	Citation
The praxis-oriented self	(Edwards-Groves 2008)
Pedagogy of the oppressed (revised)	(Freire 1996)
Professional learning that enables the development of critical praxis	(Francisco et al. 2021)
Leading praxis: exploring educational leadership through the lens of practice architectures	(Olin et al. 2016)
Finding praxis?	(Russell & Grootenboer 2008)

Table 1 Critical readings in praxis development

The above table presents a selection of readings that seek to position praxis as related to action that is morally, socially and politically informed. This action is undertaken with an awareness of possible consequences together with the intention to make positive contributions to society and to humankind. This notion of praxis acts as a nexus between CI and learning in reconsideration of the contributions of the early CI theorists.

Literature has recorded that CI has at times provided cases studies of its ability to flourish and thrive, while in other cases it has struggled for sustainability. Applying a lens of TPA to CI practices has

enabled the comprehensibility of existing social-relational, material-economic and cultural-discursive practices that enabled another way to examine sustainability of CI as it is enacted. The TPA makes clear that practices of CI within an organisation must have a purpose and provide a sense of meaning to workers. The early CI theorists recognised this in their work, too. Practice theorists recognise this phenomenon as the teleo-affective nature of practice. Having established the telos of CI practices, the undertaking of critical reflective practice by CI practitioners and workers alike enables the reconceptualisation of practices that facilitates sustainability of CI in an organisation.

Summary

This chapter aimed to explain the theoretical work of Crosby, Deming, Juran and Imai to highlight the relevance of their contributions today, despite the age of the material. Their work contains a strong narrative of the need to continuously work on improvement that defines the roles and responsibilities of top management and workers alike. The applicability of their work has seen it enacted in workplaces ranging from heavy industry to service environments and this demonstrates the robustness of their methods. The lasting legacy of their work is found in the DNA of CI methodologies enacted across the globe. Somewhere and somehow some elements of the work of Crosby, Deming, Juran and Imai have seen less emphasis as various quality frameworks are implemented. This has seen task and tool-based methods proliferating that are adopted and used in a decontextualised manner. The consequence of such an approach is the short-lived nature of improvement work that results in episodic or 'continual' improvement.

Enacting CI practices in a disembodied, disconnected manner removes the practice of critical reflection as urged by Crosby, Deming and Juran which is known to undergird Kaizen. In doing so the teleo-affective nature of CI practices that are essential for the continuous flow of improvement across an organisation are removed. To re-engage with critical reflection is to re-establish a flowing momentum of CI that is essential for its sustainability, as workers are engaged in reconceptualizing their practices and therefore enacting new ways of doing, saying and relating. The use of a practice lens provides key understandings to address these shortcomings that enable the principles of 'continuous' improvement as determined by early CI theorists to be once more embedded into CI practices.

In the following section I discuss continuous improvement and local government. Within this section the downward forces of neoliberal policies and their implications in local government are discussed. In response, local government has adopted over time a range of differing quality frameworks in the pursuit of process efficiency and effectiveness. Local governments globally, and the public sector more widely, have had variable success in the adoption of these frameworks. Literature records a range of driving and restraining forces that have contributed to the successful implementation and long-term gains achieved by quality frameworks that have been adopted by local government and the public sector more widely.

Continuous improvement in local government and the public sector

Introduction

Local government in NSW has traditionally had responsibility for the delivery of waste services, roads and rate collection according to the Australian Local Government Association (2016). State and federal government policies have required local government to be more accountable to their local communities. In pursuit of efficiencies, councils have adopted a range of CI methods that include Lean Six Sigma (LSS) and the use of the Australian Business Excellence Framework (ABEF) (Pattison 2011). A policy of council mergers was implemented by the NSW State Government with a view to delivering economies of scale. Literature pertaining to local government mergers both here and overseas do not support this policy as a way of delivering efficiencies and customer value. The challenge of doing more with less remains a challenge for NSW local government to overcome.

The role of local government

In Australia, there are three tiers of government: federal, state and local (Australian Government n.d.). This third level consists of more than 560 councils across Australia (Australian Government 2017). Local government was originally focused on public health and building regulation (Tan et al. 2016). More recently though, local government has been described as the conduit between the community and government policy (Dollery et al. 2009). This has seen growth in the portfolio of responsibilities undertaken by local government to include a widening range of community support services including childcare, aged care and refugee settlement (Boese & Phillips 2017). Councillors are elected to local government in a similar way as members of the federal and state parliaments and local government is viewed as the seat of local democracy. Despite this, state governments still exercise significant control over local government (Tan et al. 2016).

Australian local government has been required by successive federal governments to anticipate and respond to continual change. These have included the introduction of New Public Management (NPM) and National Competitive Policy which has resulted in many local governments adopting CI approaches in pursuit of efficiencies. At a state level there has been a change in the role and principles governing local government (Office of Local Government 2016). Local government in NSW has traditionally been responsible for the delivery of roads, management of waste and the collection of rates (Jones & Beattie 2015). There is pressure being applied to NSW local government by both state and federal governments to provide more services to the local community. This has resulted in a significant shift in how NSW local government funds are spent. The most notable change is in the categories of housing and community amenity (The McKell Institute 2016). It is acknowledged by the Australian Local Government Association (ALGA) that in order to respond to these challenges, NSW local government revenues must increase (Local Government Association 2016). Currently, 80% of revenue for local government comes through taxes (property rates), with the remaining revenue sourced from state and federal government grants (Local Government Association 2016). Dollery et al. (2006) highlight that

it is widely acknowledged, "…that Australian local government is under fiscal stress stemming largely from inadequate sources of funding" (p. 556).

An agenda of reform

Since the 1980s the reform of the public sector has been a priority of governments globally (Creswell et al. 2014; Radnor et al. 2012; Rodgers, Antony & Marshall 2019). The target has been to create efficient, dynamic and responsive-to-market-forces entities. This approach is known as New Public Management (NPM) (Alonso et al. 2015). In NSW this led to the introduction of the National Competition Policy aimed at reforming local government to achieve the most efficient provision of publicly provided goods and services through promoting competitive neutrality and driving down cost (National Competition Policy 2017). Many local governments in NSW responded to this by restructuring and introducing a provider/purchaser split, with staff being designated as either providers of goods and services or purchases of goods and services (Worthington & Dollery 2002). The purchaser/provider split resulted in some NSW local governments pursuing International Organisation for Standardisation (ISO) accreditation for a number of Standards that enabled them to competitively tender for work outside of their own local government area. The winning of these contracts was considered to be lucrative as it delivered an income stream (Brunetto & Farr-Wharton 2007; Worthington & Dollery 2002). Other local governments looked to implement the Australian Business Excellence Framework (ABEF) to improve service delivery and process efficiencies (Price et al. 2018). Evidence of the effects of competitive tendering and contracting out of services in local government has been mixed. Worthington and Dollery (2002) advise that any cost savings and improvements in service quality that may have arisen cannot be attributed directly to the use of these strategies. In contrast, Boyne et al. (2001) advise that their research has shown the introduction of best value legislation into local government has delivered improved service quality and accountability but had little effect on service costs and process efficiency. In adopting a practice stance, the focus on competitive tendering drove a range of new practices that were in turn driven by these new practice architectures. Quality accreditation audits were introduced, new jobs were created and internal quality improvement practitioners were employed to oversee improvement activities.

In NSW, the proposal for council amalgamations was known as the "Fit for the Future" program Dollery and Drew (2017, p. 2) where each local government was required to assess its fitness to remain as a stand-alone entity. The financial viability of the local government was a key determinant of an organisation's 'fitness'. The NSW state government engaged KPMG Australia to develop the business case for the forced amalgamation of local governments (Drew et al. 2021). The principal line of reasoning used by KPMG in their report was that unit costs would be driven down by using increased scale to drive efficiencies (Drew et al. 2021). In their report, KPMG estimated that "most of the efficiencies would be derived from savings from wages expenditure and redeployment of staff" (Drew et al. 2021). This saw a combination of forced and voluntary redundancies Dollery & Drew (2017) enacted inside of those impacted local governments. This neoliberal policy of NSW government is an example of the way architectures of practice existing inside local government prefigure management practices.

Deliberation by the Independent Pricing and Regulatory Tribunal (IPART) determined that 63% of the proposals received were not fit (IPART 2015). The election of Gladys Berejiklian as Premier of NSW saw the State Government's agenda of NSW local government amalgamations shelved. While the planned amalgamations are no longer on the table, the federal and state government's downward pressure on local government to deliver a greater range and improved quality of service to the community has not abated.

In relation to local government amalgamations Martin and Schiff (2011) found that there was little evidence to support these in terms of achieving efficiency gains. Creswell et al. (2014) identified that larger decentralised local governments risk becoming distanced from the communities they represent, and Drew et al. (2021) contend that the report prepared by KPMG deserves closer scrutiny. Despite these concerns, Steiner and Kaiser (2017, p. 246) observed "many positive effects of mergers" including improvements in service delivery. They continue by acknowledging that the financial situation of the organisation did not improve post-merger. Aulich et al. (2014) observed that efficiency gains could be achieved by various forms of amalgamation, but that these gains did not result in a reduction to rates and charges. The evidence presented for council amalgamations shows the planned outcomes and cost savings to the community anticipated by state and federal governments have not been realised.

Pursuing process efficiency and effectiveness in NSW local government

Since the 1990s the terms Kaizen and Lean Thinking have become part of the vocabulary of public sector management (Pedersen & Huniche 2011). This has been attributed to the reduction of their operating budgets and increasing customer demands (Antony et al. 2017; Antony, Rodgers, et al. 2016; Elias & Davis 2018; Rodgers, Antony, Edgeman, et al. 2019). The goal of these improvement methods has been to increase customer/citizen value while removing everything that is unnecessary and wasteful from their work processes. Research undertaken by Suarez Barraza and Miguel-Davila (2013) highlight a distinct gap in the literature that appraises the use of Kaizen in local government. Australian local government has seen the introduction of competitive tendering, resulting in a requirement for the adoption of a number International Standards by some councils. The introduction and use of ISO Standards has provided local government with an integrated quality management system. ISO Standards enable an organisation to deliver a product with consistent quality that meets the needs of the customer and provide a method to ensure ongoing CI. In response to the continuing governmental pressure, and externally imposed benchmarks, many councils have adopted the Australian Business Excellence Framework (ABEF) (Pepper et al. 2022c).

ABEF is an integrated leadership and management system that contains a number of elements believed to be essential to organisations that wish to deliver sustained high performance (Price et al. 2018; SAI Global 2017). Based on quality management principles, the framework provides a disciplined approach to business conduct based on seven key areas and within each of these the application of a model of approach, deployment, results and improvement – or the Deming Cycle (Brown 2014). Continuous

Improvement and the ABEF are inexorably connected through the key principles of the framework. Organisation initiatives such as Six Sigma and ISO 9000 series also sit comfortably under the ABEF (SAI Global 2017). Use of the framework is one way for NSW local government to develop an accurate assessment of how CI is progressing within the organisation through an external evaluation (Brown 2013). Voruka (2001) advises that an organisation will undertake self-assessment using one of these frameworks with a view to identifying improvement opportunities and organisation strengths and weaknesses (Enquist et al. 2015). The pay-off for a winning organisation is anticipated as reduced cost and process efficiency (Alonso et al. 2015).

Cost savings and increased efficiencies would enable NSW local government to deliver more value to the community (Yetano 2009). Unfortunately, it is not always successful (Dollery & Drew 2018). This has resulted in NSW local government shifting and changing its approaches to CI. The role of the practitioner is inherently social and their interaction with others enables the practices of the chosen methodology to come to life. This is the nexus of behaviours where the practitioners engage with workers and managers, and they do so in particular ways that are mutually comprehensible to those in the practice at the time. For the practitioner, their practices are shaped, interconnected, distinctive, enabled and constrained by the practice conditions present at the site.

In response to neoliberalism, NSW local government and the public sector have adopted a number of quality methods. In this section I will provide a précis of these methods:

Kaizen operating inside of local government

Whilst Kaizen is most often associated with a manufacturing environment such as car manufacturing, it has been implemented inside of local government too. For example Suarez Barraza et al. (2009) have studied the adoption of Kaizen inside Spanish local government and identified it made possible the achievement of both individual and organisational goals. Such findings have been identified across the Kaizen literature.

The concept of CI in Japanese is known as Kaizen. It is a compound word, Kai – to change and Zen – to improve Singh and Singh (2009) and has been adopted as the generic name for continual process improvement. The adoption of Kaizen has seen improved people performance through increased participation and involvement which together provide a quality of work life for workers (Hyland et al. 2005). In contrast, scholars - for example, Carmerud et al. (2018); Kregal (2019); Imai (2012); Singh and Singh (2009); Suarez-Barraza et al. (2011) - have all identified many hurdles to be overcome in order for Kaizen to be sustainable in organisations. These have been documented as the lack of program ownership, short term vision, a failure to identify problems and their root causes, and the failure to plan and execute a desired future state of CI within the organisation. Garcia et al. (2014) clearly summarise critical success factors for Kaizen. These have been identified as: constant, clearly defined management commitment, promotion of a culture of change within the organisation, and a focus on projects that improve customer satisfaction. While Iwao (2017) found that for Kaizen activities to be successful at

factories of the Toyota Motor Company, there was a need for co-ordination at the organisational

level. The evidence presented in literature foregrounds a need to consider the implementation of Kaizen

as a long-term strategy that leaders must commit to by engendering architectures of practice that enable

Kaizen CI practices to be enacted.

Lean Thinking (LT)

The principles of Lean Thinking (LT) can be found within the early work of Frederick W. Taylor (Taneja

et al. 2011). In Chapter 3 I discussed Taylorism as a management approach that embodies the principles

of scientific management. Scientific management is notable for the application of scientific principles to

workflows in order to achieve greater efficiency (Urick et al. 2017). What we have come to know

as LT can be found in the manufacturing industry of Japan and specifically the Toyota Production System

(TPS) (Ohno 1988; Sugimori et al. 1977). Taiichi Ohno was instrumental in enabling Toyota to

economically produce both large and small volumes using Just in Time production methods (Holweg

2006). The success of the TPS was to be found in the Japanese ability to strategically manage people,

materials and equipment (Ohno 1982, 1988). It is considered that TPS is successful in Japan because the

principles are closely aligned to those of Japanese society, where the expected social norms create diligent

and disciplined employees (Pakdil & Leonard 2017). The notion of continuous improvement is socio-

culturally embedded in the Japanese people. Furthermore Naor et al. (2010) investigated quality

management effectiveness in China, South Korea and Taiwan and identified that cultures that have high

uncertainty avoidance demonstrated greater quality management effectiveness. While the literature does

not explicitly claim that TPS is not transferrable across cultures, there is evidence that indicates socio-

cultural factors can influence the success of TPS (Lacksonen et al. 2010; Pakdil & Leonard 2017).

There has been considerable effort to introduce the principles of Lean into organisations outside of

manufacturing, specifically the public sector (Andersen et al. 2014; Carter et al. 2017; Rodgers, Antony &

Marshall 2019). This is in part due to the success of the publication by Womack et al. (1990) *The

Machine that Changed the World* that popularised LT. There has been wide-scale adoption of Lean into a

variety of service industries around the world (Percy & Rich 2009; Prashar & Antony 2018). Areas of

study have included - administration (see for example; Atkinson 2004), healthcare (see for example

Radnor et al. 2012), policing (see for example Rodgers, Antony & Marshall 2019), higher education (see

for example Antony 2015) and the public sector (see for example Fletcher 2018).

The attractiveness of LT to public sector managers has been the promise that it enables an organisation to

do more with less while simultaneously offering improvements in products and services (Fletcher 2018;

Madsen et al. 2017; Radnor & Bucci 2010). Advocates advise that Lean's ability to deliver process

efficiencies and improve service quality are justification for the transposition of LT into the public sector

(Radnor, Z. 2010; Womack & Jones 1996). Lean thinking methods have been successfully introduced

into the public sector which has seen improvements including a reduction in maintenance costs of aircraft,

elimination of staff hours due to process redesign, savings in waiting times and increased employee and

customer satisfaction (Radnor & Osborne 2013).

Governments have welcomed the financial benefits of implementing LT (Carter et al. 2017). However, Radnor (2010a) contends that a state of readiness must be in place prior to the implementation of LT, specifically identifying the need for an understanding of the processual nature of public service deliverables and an acknowledgement of how value is defined within the public service. Radnor (2010) continues by recognising that the organisation has to reorient itself to be externally focused and engage staff in redesigning processes through collaboration. Osborne et al. (2012) caution that Lean cannot directly be transferred across into the Public Service and assume it will deliver the same benefits experienced within the manufacturing industry. Furthermore, Gulledge and Sommer (2002) add the LT failure within the public sector has been attributed to the top-down approach, driven as a fiscal policy to reduce spending at the exclusion of staff who would be responsible for the implementation. Such a top-down approach would hinder any future attempts of CI. This refreshed the focus on service industries and how they differed from manufacturing industry.

Six Sigma

Motorola won the Malcolm Baldrige Quality Prize in 1988 and this is credited with the adoption of Six Sigma by other organisations, including General Electric, Boeing, DuPont, Toshiba, Seagate, Allied Signal (Honeywell), Kodak, Texas Instruments and Sony (Andersson et al. 2006; Kwak & Anbari 2006). The methodology was brought to international attention and championed by Jack Welch and has since been adopted by all types of organisations, from large corporations to small family run businesses (Grima et al. 2014). Six Sigma initially had a strong focus on the adoption of statistical methods to reduce process variation. Over time it has come to represent a set of values that include the need to provide customer satisfaction. The adoption of these values has seen Six Sigma implemented in various industry sectors (Klefsjo et al. 2001; Sreedharan, Gopikumar, et al. 2017; Sreedharan, Raju, et al. 2017)

For the successful implementation of Six Sigma into an organisation, scholars including: Dahlgaard and Dahlgaard-Park (2006), Kruegar et al. (2014), Sreedharan, Gopikumar, et al. (2017) all purport that the culture of the organisation is paramount to success. Furthermore Kwak and Anbari (2006) discuss the difficulty in integrating the data driven and structured processes associated with Six Sigma. As discussed previously in this chapter, social-political, material-economic and cultural-discursive arrangements enable and constrain how a practice is enacted in the organisation that works to channel worker individual practice to be enacted in particular ways. Notable within the definition of SS offered Schroeder et al. (2008, p. 540) is evidence of the architectures of practices: "Six Sigma is an organized, parallel-meso structure to reduce variation in organizational processes by using improvement specialists, a structured method, and performance metrics with the aim of achieving strategic objectives." The successful implementation of SS is therefore dependent upon the provision of care and attention to all of the architectures of practice to enable and sustain the goals of SS in an organisation.

They acknowledge that such a necessary adjustment to the organisational culture requires time and commitment. Grima et al. (2014) explicitly express that clear improvement objects, supervision,

monitoring and support are required to be set in place and reviewed on a continuous basis for the successful implementation of Six Sigma. The conclusions drawn by Grima et al. (2014) clearly situate Six Sigma within the mechanistic paradigm.

Six Sigma differentiates itself from other methods of CI in the way it is driven by the collection and use of data to prioritise improvement work within the organisation, so much so that a narrative exists within the literature that situates Six Sigma within the practices of scientific management (Hoerl & Gardner 2010). With a focus on the 'hard' elements of CI see for example Ershadi et al. (2019); Ali and Johl (2021) the other 'softer' elements are often put to one side. Similar to Six Sigma in a number of ways, it is possible to observe these 'hard' elements dominating practices associated with the implementation and use of International Standards.

Lean Six Sigma – a hybrid methodology

It is widely accepted today that the term Lean Six Sigma (LSS) is used to describe a system that incorporates both Lean and Six Sigma (Pepper & Spedding 2010). In literature it has been labelled as a "hybrid methodology" (Ben Ruben et al. 2017; Bhuiyan & Bhagel 2005), and it is the most common embodiment of CI today (Hilton & Sohal 2012; Laureani & Antony 2016). The popularity of Lean Six Sigma has been attributed to its ability to generate creativity and innovation (Hoerl & Gardner 2010). The popularity of Lean Six Sigma is due to its specific practices, such as removing waste, enabling the product/service to conform to customer requirements, the reduction in defects, the cost of poor quality, cycle time and increases in delivering the right product/service at the right time in the right place (Antony, Vinodh, et al. 2016b; Laureani & Antony 2019; Vinodh et al. 2015). Pepper and Spedding (2010) advise that Lean and Six Sigma, "if fused together, can potentially represent an exceptionally powerful tool" (p. 151) as it looks to balance the people/culture aspects with the process/tools of Six Sigma. These would also be understood as the 'soft' and 'hard' elements constituting CI as discussed earlier in this chapter. The integration of the two methods may help organisations to maximise their potential for improvement, though as the literature acknowledges success and sustainability can be difficult to achieve. However, appropriate reflective practices need to be embedded into the culture of the organisation for success.

Critical failures of LSS have been identified within the literature as lack of top management commitment and involvement (Snee 2010). The inadequacies of staff training and education have been highlighted (Albliwi et al. 2014; Pedersen & Huniche 2011). Poor project selection and prioritisation have also been identified (Kornfeld 2013). Resource scarcity, including financial and human resources, have also been associated with LSS failure (Laureani & Antony 2012; Snee 2010). Poor communication has also been highlighted as a further contributing cause of LSS failure (Assarlind et al. 2013; Jeyaraman & Teo 2010). All of these critical failures are evidence of where the methodology has been implemented and enacted in such way that has removed the very elements outlined by Crosby, Deming and Juran as requirements for an ongoing flow of continuous improvement, specifically in their united calls for management to provide workers with training and resources.

Service reviews

Continuous improvement and quality management have been present within Australia and New Zealand local government for many years (Pepper et al. 2022b), as evidenced by the many frameworks in operations and the application of a number of tools. A more recent addition to the literature of CI in NSW local government includes the adoption of service reviews (Pepper et al. 2022b). This may have been brought about by the increase in the number of services currently being delivered across local government (Walker & Gray 2012). With communities requiring greater amenity in the areas in which they live and work, NSW local government has taken on a greater portfolio of responsibilities that has moved it further away from the traditional responsibilities of "roads, rates and rubbish" (Walker & Gray 2012, p. 5). A switch to service reviews is understood to be driven by the need to secure financial sustainability as the availability of funds generated by rate increases becomes less and less (Dollery et al. 2013). Additionally, service reviews play a role in ensuring the quality of the service being delivered Pepper et al. (2022b) through the application of value stream mapping tools and techniques (Vinodh et al. 2015). Value stream mapping (VSM) is recognised in literature (see for example Contras 2020; Hedlund et al. 2020; Singh et al. 2020) as a technique closely associated with LM that is used to identify and eliminate waste (Vinodh et al. 2015). With a number of local governments pursuing service reviews, Pepper et al. (2022b) aver that the approach should be combined with a robust CI methodology such as LSS to further strengthen the organisational approach to improvement.

In this section I have acknowledged the complex nature of operations that exist within NSW local government in response to downward neoliberal policies from state and federal governments. The challenge of meeting the needs of the community with reducing budget resources remains a constant for NSW local government. By way of response to these challenges, NSW local government has looked to a range of CI frameworks including LT, LSS, ABEF and, most recently, service reviews. In the following section I consider the literature that recognises a need for a contextualised approach to CI within public sector organisations.

A decontextalised approach to CI by local government

In literature it has been acknowledged that 'a one size' approach does not fit all organisation types when considering the implementation of CI (Zhang et al. 2012). The successful implementation is dependent upon a contextual understanding of the organisation. The theme of contextualistion has been discussed within literature and three subthemes have been identified: contextualization to facilitate the embedding of continuous improvement, the importance of contextualization to employee empowerment, and how contextualization assists the development of a culture of CI.

In implementing CI, consideration should be given to the organisation structure and operating environment. Zhang et al. (2012) consider the role of practitioners and contend they must understand the context in which they are working and customize their practice accordingly. This approach to

contextualization is seen as a way of embedding sustainable CI (Sila 2007; Westphal et al. 1997). The role of management is to nurture an environment and support employee empowerment to create a culture that is underpinned by human resource policies to sustain continuous improvement (Ahmad & Schroeder 2002; Chang et al. 2010; Curry & Kadasah 2002). This empowerment strategy provides employees with the freedom to take responsibility for their ideas, decisions and actions, thus freeing up the time of management to concentrate on organisation strategy (Eskildsen & Dahlgaard 2010). A key objective of employee empowerment is to create an energetic workforce that is able to meet or exceed customer expectations. In contrast, Elshaer and Marcjanna (2016) question the role of customer focus and employ management in creating a competitive advantage. It is generally contended that empowered employees have greater job satisfaction and superior performance, primarily due to their ability to set their own goals and make decisions that affect their work, including driving CI in their day-to-day work (Bakotic & Rogosic 2015). Again, the elements described above can all be identified in the works of the early CI theorists where they state succinctly the role of top management in setting up and managing the organisational environment in readiness for the improvement work.

We are witnessing in literature multiple case studies of CI being adopted and implemented in the public sector in a decontextualised manner that has contributed to the unsustainability of any gains achieved. The subject of sustainability of CI in the public sector across the globe is contested within the literature. This has resulted in numerous root causes being identified. In the following section I summarise the breadth of these causations using a force field diagram to offer both 'sides of the coin' where scholars have also identified factors necessary for CI to be sustained.

Drivers and restraining factors of sustainable CI in the public sector

Scholars have examined the driving and restraining forces associated with sustainable CI which can be categorised under the themes of leadership and culture see for example Dahlgaard-Park et al. (2013) customer focus see for example Radnor and Johnson (2013); strategic direction see for example Fletcher (2018); contextualization see for example Price et al. (2018) and organisation learning see for example Kovich and Fredendall (2015). Following is a discussion on each of these themes and the contribution they make to enabling CI to become sustainable in the public sector.
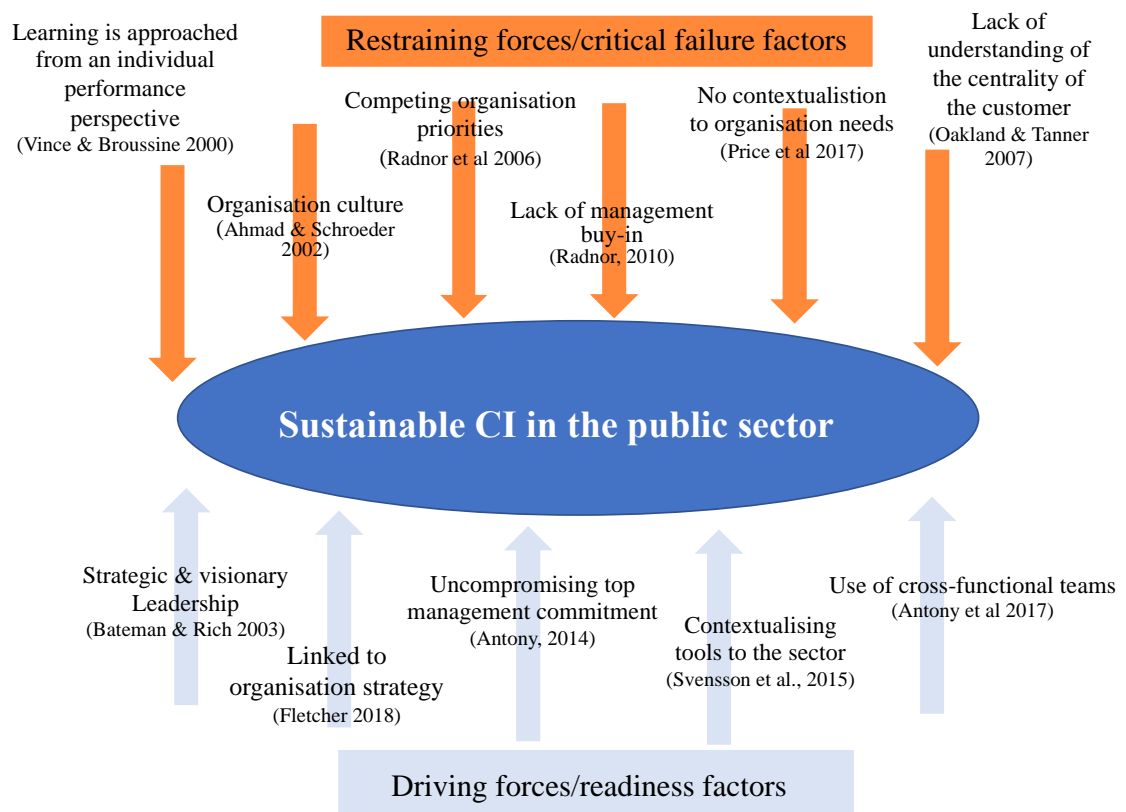
Figure 3 Forcefield diagram of driving and restraining forces of sustainable CI

A reinterpretation of a forcefield analysis has been used to depict the driving and restraining forces recorded in literature necessary for sustainable CI in the public sector. The literature has outlined a number of factors that can influence or hinder the successful and ongoing sustainability of CI. Readiness factors have been defined as the key ingredients for the effective implementation of the chosen CI method (Laureani & Antony 2012a). By paying attention to the readiness factors   management will be successful in their planning, implementation and communication of LSS (Zhang et al. 2012). The public sector is acknowledged as consisting of complex organisations with multifarious processes, goals and priorities. In implementing CI, consideration must be given to the organisational structure and operating environment. Additionally, Zhang et al. (2012) contend practitioners play a key role in the sustainability of CI through their ability to customise their practices according to the unique environment in which they operate. This contextualised approach is seen as a way of embedding sustainable continuous improvement (Price et al. 2018; Sila 2007; Westphal et al. 1997).

In the following section I will discuss each of the key themes identified in the force field diagram. At the conclusion of examining each of the themes, I will revisit these through the lens of TPA.

Management and culture

It is considered the role of management to nurture an environment and support employees to create a

culture that is supported by human resource policies to sustain continuous improvement (Ahmad & Schroeder 2002; Chang et al. 2010; Curry & Kadasah 2002). This empowerment strategy provides employees with the freedom to take responsibility for their ideas, decisions and actions, thus freeing up the time of management to concentrate on organisation strategy (Eskildsen & Dahlgaard 2010). The key objective of employee empowerment is to create an energetic workforce that is able to meet or exceed customer expectations. However, in contrast, Elshaer and Marcjanna (2016) question the role of customer focus and employee management in generating competitive advantage. It is generally contended that empowered employees have greater job satisfaction and performance, primarily due to their ability to set their own goals and make decisions that affect their work, thereby driving continuous improvement in their day-to-day work (Bakotic & Rogosic 2015). Dahlgaard et al. (2013) identified organisational culture and, to some degree, the poor performance of leadership processes as the reasons why business excellence frameworks fail in the long term. This finding was reinforced by research undertaken by Pimentel and Major (2016) within the public sector more widely.

Organisation culture and learning

Research undertaken by Pawluczuk and Ryciuk (2015) demonstrated that organisational culture plays a significant role in the facilitation of learning within organisations when it is mediated by the attributes of leaders. Research undertaken by Khattak et al. (2020) considers the role of trust as a prerequisite between management, the organisation and workers, and provide data to show this is necessary for successful CI efforts. The work of Costa et al. (2019) considers the so-called 'soft practices' that are necessary for sustained CI. The outcomes of the authors' work highlight the key role of management and organising practices. Specifically, they found there was a need for, firstly, deep engagement of each and every employee to build an environment in which workers hold a critical role in pushing for daily incremental improvements. Secondly, it was important to institute leaders who can live the culture of CI and demonstrate their deep emotional and physical commitment in order to motivate workers. Thirdly, the deployment of procedures that enable the fast and effective transformation towards a sustainable system of improvement was necessary. Lastly the authors noted that the continual process of organisational learning must be supported daily. In support of learning as a way for sustained CI, Vince and Broussine (2000) argue it needs to be done in such a way as to be individually on the development of job-related skills. In Chapter 5 these traditional understandings of learning are problematised through the absence of theorisations of practice in their narrative. Chapter 5 foregrounds learning through the lens of TPA that is inclusive of the role of agency, adaptation and change.

Customer focus

A focus on the customer and striving for high levels of satisfaction is something most organisations try to achieve (Berry et al. 2006). The literature has acknowledged that the identification of the customer within the public sector is not as straightforward as it might be in a commercial operation (Osborne et al. 2012). Moreover, the authors offer a range of entities that may be considered customers, for example, direct end users, multiple users of a service, citizens who benefit directly from a service or indeed

unwilling users. Knowing the customer is central to the success of CI. Knowing customers enables an organisation to interact with them in a way that facilitates the customer's ability to articulate both the standard and requirements of the service (Radnor & Johnson 2013). Tailoring product and services to customer needs allows for the removal of redundant processes (waste), thus freeing up resources to be deployed elsewhere in an organisation.

Strategic direction

Strategic planning is an approach that is used by many organisations to adapt to changes in the environment to enable business success. Kloot and Martin (2000) contend there has been a focus on performance management within local government where the delivery of primary objectives has overshadowed the requirement for organisational performance and the requirements for achieving long term sustainable continuous improvement.

Within local government there is a need to recognize the need for change (Fletcher 2018). Scholars have described the role of senior management in setting the organisation's strategic agenda (see for example: Bessant & Francis 1999; Pamfilie et al. 2012). These scholars contend there is a role for visionary leadership to enable employees to shift from their current activities to those considered to be of best practice. Scholars have made a case that this is to be achieved through the dissemination of a shared vision that is ingrained in the day-to-day tasks of all staff, regardless of where they sit in the hierarchy.

Contextualisation

Scholars including Radnor and Johnson (2013) and Radnor and Boaden (2008) argue that the public sector cannot adopt commercial management practices and expect significant or similar levels of improvements. Radnor and Johnson (2013) have identified that the public sector has focused on the implementation of technical tools associated with CI methods such as Lean, without an understanding of the context in which it is being implemented. Kaplan et al. (2010, p. 12) describe context as "[. . .] characteristics of the organisational setting, the environment, the individual, and their role in the organisation or QI project". Mann (2014) contends LT exposes problems that necessitate new ways of resolution rather than the development of workarounds designed to achieve deadlines. LT has problem resolution as its foci (Mann 2014). Such foci are challenged due to the varied ways in which organisations implement CI modalities where the work of the chosen modality will vary across business units. Furthermore, the theme of context plays out in the literature pertaining to the public sector and CI sustainability more widely; see for example Medne and Lapina (2019) and Price et al. (2018), where the authors argue that adopting a one-size fits all approach is flawed and suboptimal.

The role of leadership and organisation strategy was previously discussed in relation to CI sustainability. Bolton and Heap (2002) note that when implementing the CI strategy consideration must be given to contextualizing and customizing the approach to the unique operating environment. This is a critical point and follows the teachings of Crosby, Deming and Juran albeit using different terms. Zhang et al.

(2012) conceptualise the role of practitioners and change agents to understand the context in which they are operating and customize their practices accordingly. This contextualization approach is seen as a way of embedding sustainable CI in an organisation through the enactment of critical praxis. With a body of research advising practitioners and organisations alike of the critical success factors for sustainable CI, what has become clear is that no one approach has been able to offer long term sustainability. Indeed, the issue of sustainability is in and of itself a wicked problem.

In the case study introduced at the beginning of this chapter I outlined how the top-down approach adopted in deploying CI influences the practices of the CI practitioner. The TPA recognises this phenomenon as the architectures of practice working to enable and constrain those practices. In the following section I discuss the recognised influences that drive and restrain the sustainability of CI as I have outlined earlier in this chapter.

Drivers and restraining forces viewed through TPA

Presenting what CI scholars recognise as driving and restraining factors of CI has enabled a view to emerge that has had a focus on points of causation behind the unsustainability of practices. To adopt a lens of TPA enables the exploration of connectedness of practices; that is, there is no one causal factor for CI practices to either thrive or decline, but rather that practices exist, adapt and evolve in relation to other practices such as a living thing existing in an ecology (of other practices). The use of TPA situates practices as being irreducible to either one of sayings or doings or relatings. A practice consists of all these elements that 'hang together' to form the practice being observed (Mahon et al. 2016b). Moreover, to take a practice lens in considering drivers or restraining forces to sustainable CI enables a new perspective to be taken that considers practices to be situated in the particular circumstances and conditions particular to a site (Schatzki 2006). As presented in Chapter 1, TPA recognises the architectures of cultural-discursive, material-economic and social-political arrangements that together prefigure and shape the content and conduct of a practice that go on to shape the sayings, doings and relatings at that particular site.

In looking to the establishment of sustainable CI, there is a need to reconsider the understanding local government and the public sector more broadly attributes to CI. Sustainable CI may be evidenced in and through practices not previously considered to be CI practices. Such a shift foregrounds the teleo-affective features of practices that takes into account the values, beliefs and hopes which influence the way a practice proceeds, and how it is thought about within collective practice (Schatzki 2002). A practice does not have to carry the label 'CI practice' for a continuous flow of improvement to exist within an organisation. In considering the work of Crosby, Deming and Juran and their dispositions of improvement, each of these theorists made clear the requirement for improvement to flow in a continuous movement throughout the organisation, and it was the role of top management to remove those barriers that impeded such a flow that literature has recognised as unsustainable gains. Scholars have looked at the influencing capability of top management on CI sustainability. However, the TPA holds top management cannot single out any one of the practice architectures in the anticipation of establishing

sustainable CI practices. The three elements of architectures of practices together give practices their meaning and comprehensibility, productiveness and connectedness and solidarity (Kemmis et al. 2012). In Chapter 3 this notion was explored and discussed using a Venn diagram to illustrate how the early quality theorists foreground a need to communicate a clear aim and purpose in the introduction of an organisation CI program that clearly established the role of both top management and workers. Therefore, repositioning an understanding of CI practices that shifts it to existing within a network of interconnected practices (often those practices previously ignored as practices of CI) foregrounds the teleo-affectiveness of practices as it delivers the understanding that improvement is embedded in all practices of the organisation.

Summary

The initial part of this chapter introduced the role of local government as it is enacted in Australia. The narrative then progressed to identify how downward pressure from both state and federal governments has impacted on local government. This has manifested in local government undertaking an increased portfolio of responsibilities. Local government is not alone in being required to deliver greater efficiency and effectiveness. Following from the presentation of local government in Australia the discussion moved to include CI and the public sector. The public sector in Australia and across the globe is increasingly being required to do more with decreasing budgets resultant from neoliberal policies being implemented by governments. By way of response, the public sector has deployed a variety of quality methods including Kaizen, LT, SS and LSS. Many of these methods have strong associations with the manufacturing industry where there exist multiple case studies of successful implementation; however, the anticipated results in the context of the public sector have often failed to be realized when these methods are enacted in the service environment as it exists in NSW local government and the public sector more widely.

In the last section of this chapter I presented the literature that draws together the linkages between CI and learning. The early quality theorists of Deming, Juran, Crosby and Imai were steadfast in their belief that the successful implementation and achievement of process gains is dependent upon the organisation's ability to learn (Terziovski et al. 2000). Such positioning clearly situates the relationship between CI and learning as reciprocal.

Learning and continuous improvement

Introduction

Learning is an integral component of CI. As presented in previous chapters, frameworks of CI are founded upon practices that are instituted for individual and group learning in the context of doing things

more efficiently and effectively. This is acknowledged as the removal of waste Chiarini et al. (2018); Ohno (1982, 1988). In earlier chapters I have foregrounded how learning has not been sustained in some organisations engaged in CI (see Chapters 3 and 4). The concept of learning, however, is not well represented in the CI literature Ahmed et al. (1999) despite the centrality placed upon it by the early quality theorists. Where it is addressed by scholars, there are few that have brought new interpretations of learning to the CI literature. In this chapter I will reinterpret conceptions of learning as presented in TPA. In over 30 years of discussion by scholars, Gherardi (2000, 2016) contends that the topic of organisational learning has yet to account for a practice theorisation on learning and knowing. Practice scholars including: Gherardi (2001, 2006); Kemmis (2021); Kemmis et al. (2017); Rönnerman and Kemmis (2016); and Schatzki (2017) have all problematised these earlier psychological perspectives of learning by reconceptualising it through their respective theorisations of practice. Guzman (2013) asserts practice and knowledge are inseparable and indeed the two sides of the same coin. It is only through a need for analysis that scholars treat these separately.

It would be convenient and useful if there existed a well-established understanding of the nature of learning, however, no such consensus exists (Alexander et al. 2009). Such diversity in the positioning of the learning literature cannot truly be represented in a single chapter of a thesis. To address this shortcoming, I will commence with a broad theoretical perspective that situates treatments of learning. The differences that arise in the learning literature may arise from their theoretical positioning, for example: cognitive contextualists who considers the interactional situated nature of cognition Piaget (1971); Ultanir (2012); socio-culturalists who place an emphasis on the interaction between people and the culture they live in, and consider human learning is a social process Hausfather (1996); Vygotsky (1986); the conventional views of learning in the workplace that have mostly positioned it as a cognitive function and skill acquisition (Burchell et al. 2000; Colley 2012; Eames & Coll 2010; Illeris 2003). The cognitive evolutionists contend the evolution of human cognition involves considering the brain as a social tool where the changes in social behaviour throughout history have resulted from the necessity of dealing with others in social circumstances Geary (2005); and situationists believe that past experiences and behaviours do not determine what someone will do in any given circumstance Engstrom (2001). Such diversity in the theoretical landscapes has yet to identify any explication of the nature of learning that captures all the notions briefly outline above (Alexander et al. 2009). Having foregrounded a traditional approach to discuss learning and problematised these approaches in discussing theorisations of practice, the aim of this chapter is to identify the manner in which TPA's position learning that provides a new construct to understand learning in the context of CI. In the following section I will discuss CI and learning as discussed in the context of CI literature.

CI and learning

In revisiting the work of Crosby, Deming and Juran, presented in Chapter 4, it is possible to locate the approach to learning that is contained within their collective works. All three theorists take a 'reflective' approach to learning where they each consider the outputs of past endeavours to assist in setting the

approach and goals of the next project of work ad infinitum. Though CI literature has predominantly shifted focus to discuss the application and implementation of various frameworks, the DNA of the work of Crosby, Deming and Juran is still evident through the assertion that learning and CI are inextricably linked (Dean & Bowen 1994; Kristal et al. 2010; Oliver 2009). The relationship between learning and CI success has been described as being dependent on the application of a Deming-like approach that has been translated into the organisation's ability to learn, absorb, adapt and to apply visionary changes that are integrated throughout the organisation (Terziovski et al. 2000). A further assertion made in the literature, (see for example Bessant and Francis 1999) is that when CI takes place, a positive change follows, but that this does not guarantee learning has occurred. A focus on learning is said to encourage workers to evaluate performance, enabling the outcomes from CI activities to be added to the organisation knowledge base Oliver (2009). However, there exists a significant volume of evidence in the literature that the relationship between CI and learning does not transpire in this way, nor does it deliver the anticipated ongoing cycle of improvement that has seen unsustained gains (Albliwi et al. 2014; Arumugam et al. 2012; Sreedharan, Gopikumar, et al. 2017). The epistemology of CI is recognised in literature as playing a significant role in the organisation's ability to adapt to a rapidly changing environment (Becker et al. 2005; Carayannis et al. 2017). In sum, there has been a call for the foregrounding of learning in the CI literature where scholars assert learning is an essential characteristic of CI that is undergird by employee knowledge and understanding (Locke & Jain 1995; Manuti et al. 2015; Oliver 2009) This is what this particular research, drawing on TPA, seeks to do.
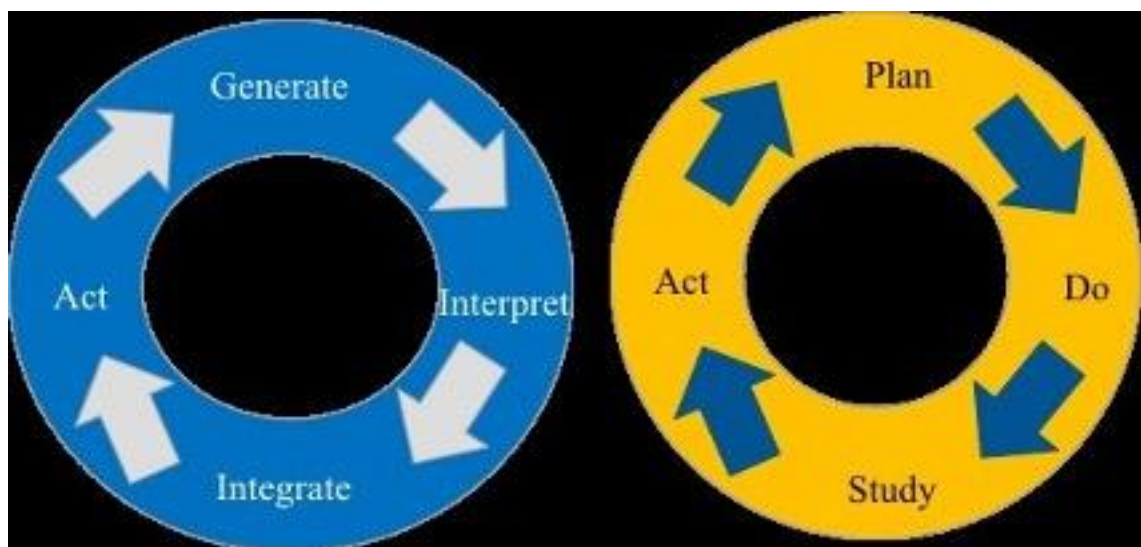
Figure 4 A comparison of the Deming cycle and Dixon's model or organisational experiential learning

Figure 4 is a reinterpretation of both the Deming Cycle and Dixon's model of organisational learning. The placement of these models side by side illustrates the complementary nature of Dixon's model of organisation learning and the Deming Cycle. When considering organisational learning, the experiential learning model proposed by Dixon (1994) illustrates that the continuous flow of cross-functional information and knowledge is an important driving force that mirrors the Deming cycle. This is supported

in literature by Swink and Jacobs (2012), who acknowledge the Deming cycle as a learning cycle. This is suggestive of the powerful nature of reflective practice in CI; however, this step is often overlooked or at best limited (Gidey et al. 2014). Garvin (1993) contends that CI requires a commitment to learning, otherwise the successes will be short-lived and unsustainable. Learning is considered to be the mechanism to understand how CI can lead to organisational change, that is, *how* the improvement to processes and changes in behaviours are internalised in day-to-day operations (Ni & Sun 2009; Swink & Jacobs 2012). In Chapter 4, the requirements for continuity and an ongoing flow of CI projects was discussed from the perspectives of Crosby, Deming and Juran, where each recognised the mutual relationship of improvement and change reinforcing one another that results in the generation of a dynamism of continuous improvements.

In this section I have established how literature has considered the relationship of learning and CI as critical. Though learning has been discussed as a critical element of CI, when CI is viewed as a bundle of practices there emerges an understanding that CI can and does occur without learning. This absence of learning suggests that this may result in the unsustainability of approaches. In the following section I will introduce how TPA considers learning.

Learning as it is discussed in the TPA

In learning a practice, workers often enact practices familiar and recognisable to others and they must judge when to enact these and when to vary them according to the circumstances they find themselves in. In the following section I will present learning as it is discussed in TPA. The adoption of the lens of TPA offers an alternative view to how we understand learning from the acquisition of knowledge to evidence in changes in other practices (Kemmis 2020). It enables learning to be understood as happening in the reproduction of a practice (with variation), the transformation of the practice and the production of new practice. This stance considers learning as a social practice, not solely a psychological one (Kemmis et al. 2017).

In this section I will commence by presenting the earlier understanding of learning within TPA and then move to the recent reconsideration undertaken by Kemmis. We learn by engaging in practices. For example, academic writing as part of professional practice is often undertaken as a solo activity. When we engage with our colleagues and peers through the asking of questions and take the opportunity to discuss our topic with them to gain a critical understanding we become 'stirred in' to professional practice. In revoicing his understanding of learning in TPA, Kemmis (2019, p. 123) has included the notion of the "learner alone without someone/something to show or teach or initiating or stirring". For example, the COVID-19 global pandemic saw a need for students to use online resources from the library instead of borrowing resources in person. Student's academic practice shifted to do research differently, by adapting to the newly emerging practice architectures designed to support remote research.

Through their observations, Kemmis et al. (2017) present an argument that calls into question the process of learning that is distinct from practising a practice. They suggest that the phenomenon others recognise as learning is a description of a state where the worker is not practising at a level that they or someone else expects them to reach. Furthermore, Kemmis et al. (2017) suggest that practising always includes responding to the variation of conditions that can arise at any particular moment that then contributes to adaptations of the practice. Considered from the view of the worker who has accomplished the adaptation, adaptation looks like learning, as they have attained a new level of practice accomplishment. This being the case, Kemmis et al. (2017, p. 60) contend that "learning and practising amount to much the same thing: that what is learnt is always a practice and that what counts as 'learning' a practice is always part of, or a stage in practising the practice, especially when one is new to the practice or is practising in new circumstances." From this view, a worker is always at an earlier or later stage of efficiency and proficiency at the conduct of a practice, as they are being 'stirred in' to the practice.

Kemmis et al. (2017) suggest that 'learning' elucidates the process, activity and sociality linked with coming to do something new. When people come together and engage in a new topic or field of experience, perhaps with some trepidation, they can be observed being drawn in or indeed being 'stirred-in' to the practice that sees these workers go on to enact their practice differently. For example, all new students receive an introduction to the facilities available at their campus library. While local students will mostly likely be familiar with the notion of a library, it is not until they need to borrow a book from the university library that they enter the practice of tertiary library use. Some overseas students who may be unfamiliar with libraries and the Dewey Decimal System, might enter into the earlier stages of the practice than someone who is proficient in the act of borrowing books in Australia.

In the context of TPA, learning is framed as practising differently (Kemmis 2021). This reflects the most recent development in TPA, refining notions of learning earlier articulated within this perspective (Hopwood 2021). Previously learning had been discussed as being 'stirred in' to practices (Kemmis et al. 2017). This positioning of learning has been revised by Kemmis (2021) and has resulted in a central focus on an active role that accounts for difference. Furthermore, Hopwood (2021) contends that being stirred in can be read as passive, which raises questions as to who or what is doing the stirring. This most recent consideration by Kemmis clarifies learning as coming to know how to go on in a practice and is indicative of change.

Learning in CI as conceptualised through TPA

As presented in Chapter 2, TPA holds that practices are prefigured, not predetermined, and open-ended by the practice architectures at a site. As workers encounter these practice architectures their practice is both enabled and constrained and we observe the influence of these in how practices unfold at a site. Kemmis et al. (2017, p. 51) aver that what workers learn is how to go on in practices where it is possible to observe changes in how these workers enact the sayings, doings and relatings that constitute the specific practice that results in practising differently. How is this notion useful in furthering our understanding of what CI literature discusses as the unsustainability of such an approach?

The ontological positioning of TPA rejects the idea that practices are shaped by invisible 'social structures' Rönnerman and Kemmis (2016, p. 95). Instead, practices are shaped, but not predetermined by different kinds of arrangements that are actually present or brought to a site (Rönnerman & Kemmis 2016). Variation is recognised then to occur in response to changes within these arrangements as workers explore the opportunities for refinement. In varying the ways particular practices are practised in response to the changing conditions, practitioners create conditions for the evolution and transformation of both practices and themselves as practitioners (Kemmis & Grootenboer 2008). Workers with the capacity to recast and reconstruct practices realise a responsiveness to changes occurring at the site. However, this capacity to vary practices may not always be positive. For example, in NSW local government when the lens of TPA is applied to CI it could be suggested that site architectures are working to diminish prefiguration of worker practices through the implementation of CI tools to replace CI worker practices. Hopwood (2021); Sjolie et al. (2020) contend that phenomena can be recognised as response and adaptation to these site architectures. This conceptualisation highlights the bureaucratic nature and performativity that CI has become synonymous with in, for example, NSW local government, in pursuit of accreditation and awards that may bear little relevance to workers. The teleo-affective element of a practice is at risk in such circumstances that may result in workers 'going through the motions' because in their mind, the project of the practice has been lost.

In sum, Kemmis and his co-authors, see for example: Kemmis (2021); Kemmis et al. (2017); Rönnerman and Kemmis (2016) position learning as a process of being stirred into practices that takes into consideration whether the worker is practising alone or participating with others in shared activities. This original positioning has undergone a shift that learning is coming to practise differently. Workers' knowledge is embodied and enables them to interact with others and the world and is secured in the sayings, doings and relatings that take place among the practice architectures present at the site. Worker learning is a constant adaptation of practising. This situated nature of learning considers that learning is contextual and ensues as part of the happenings at the site. The Theory of Practice Architectures argues for the ontological transformation of both workers and their practices. Workers do not participate in a practice of learning to produce these transformations, what we observe is the enactment of the practice differently. In the following section I draw attention to the transformative nature of critical reflection through the use of action learning sets that is presented in detail in Chapter 6. In his work, Revans foregrounds acts of reflection and action that generate continuous cycles of improvement. I commence with positioning Revans' work in the learning literature.

Revans' model of OL

The work of Revans is centred on workplace productivity and his understanding that the way to achieve this was through upskilling workers to meet the demands of a changing industrial landscape. The Revans equation of learning (L) consisted of two elements: one programmed or formal learning (P), and questions (Q). He averred that the acquisition of programmed knowledge cannot be solely considered as

learning (Yeo & Gold 2011). Revans' view of the inseparability of learning and action mirrors that of Kemmis et al. (2017) insofar as learning may be observed through the changing of practices.

Revans' methodology became known as Action Learning (AL). Dilworth (2010) suggests that Revans had an interest in deep self-questioning that involved more than asking 'why?' but looking at the 'why?' behind the 'why?' This process of self-enquiry identified assumptions that impact on the way we think and solve problems in order to bring these to light for examination. The process of reflection upon reflection having brought to the surface for examination these dysfunctional assumptions then enables these to be abandoned or modified, allowing for the development of new, more functional assumptions to govern thought processes (Dilworth 2010). Revans saw AL and reflective processes as an instrument for unlocking change. This positioning of learning echoes that of the early quality theorists.

Action learning and action learning sets (ALS)

Within a set, it is implied that individuals are beings of abundance that can be drawn upon to further learning (Lea & Street 1998; McGill & Brockbank 2004). In the adoption of this model, given the opportunity, space and encouragement, learning with ensue (McGill & Brockbank 2004). Therefore, in an ALS, members bring with them their whole of life experience to the set as a resource to be applied to the issue presented. When viewed through TPA the ALS becomes a site with its own architectures of practice that connects worker sayings, doings and relatings through the unfolding of set practices.

Revans' (1982) Action Learning Cycle will be the model used in the development and facilitation of the set. In the following section I will describe each stage of Revans' model (see Figure 5).
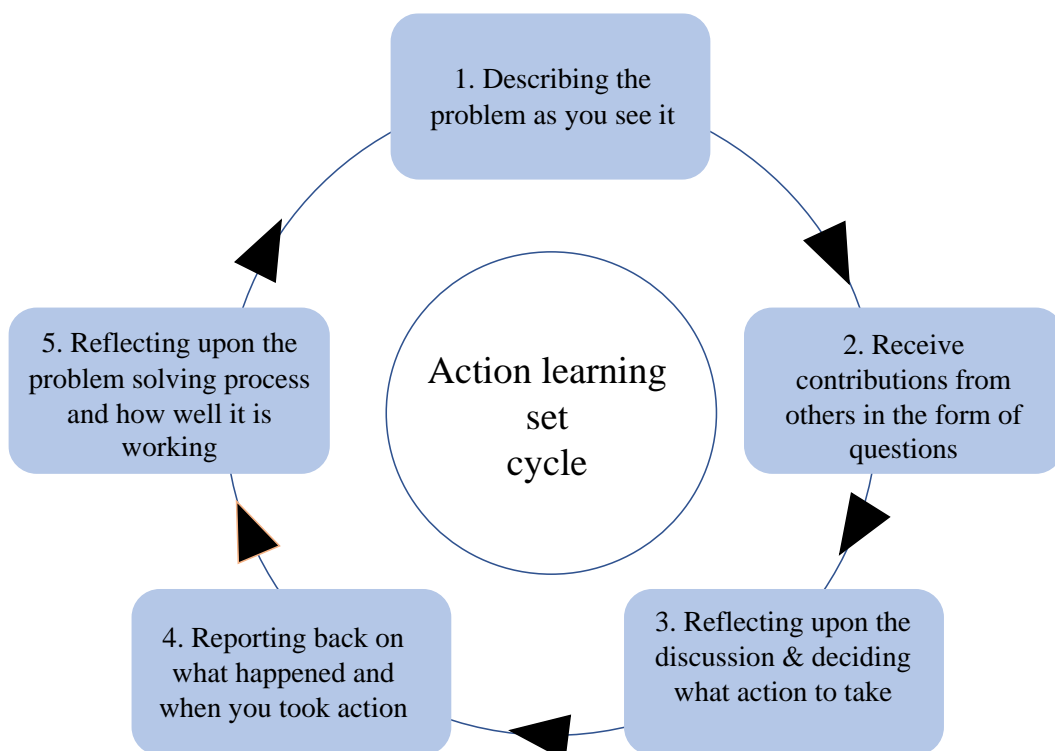
Figure 5 The action learning cycle

Adapted from Revans (1982)

Figure 5 represents the reflective elements of learning that are implicit in ALS. The ALS as described by Revans consist of 5 steps and at the completion of one cycle a new cycle is enacted in the same way as Deming's PDSA Cycle, where the completion of one cycle becomes the catalyst for the next.

Reflective practice and learning

Theories of reflection maintain a central position in the theorisation of learning (Reynolds & Vince 2004). Reflection is associated with theoretical consideration that opposes habitual, practical and routinised problem-solving (Cope 2003). Some of the triggers to reflection have been recognised in literature as: felt difficulties Schon (1983); breakdowns Yanow and Tsoukas (2009), moments of surprise Jordon (2010) or an unexpected outcome Watt et al. (2015). Scholars have established that reflection may lead to new insights, inferences and perspectives (Crossan et al. 1999; Kolb 1984). This cognitive approach to reflection necessitates the removal of the self from ongoing activity and requires one to stand back as a neutral, detached observer investigating what one has done, experienced or believe in (Zundel 2012). Dewey (1925) notes that the process of reflection has tended to occur when someone has a problem that needs to be solved and has viewed reflection as a *continuous process* of review and evaluation that included the interplay of assumptions and beliefs leading to alternative accounts (Jude 2018). Reflective practice as described by Schon (1983) can be considered as thinking on one's feet, thinking after the experience and analysing one's actions.

The lens of TPA calls into question this cognitive approach as the latter neglects to recognise the social-relational, material-economic, and social-political elements that situate practices as unfolding in response to the influences of the site architectures of practice. Moreover Hopwood (2021, p. 89) argues for the role of agency, where a worker "will confront questions about the projects, ends and moral purposes of practices and the bearing that coming to practise differently has upon those". We are left to consider that when a worker comes to practise differently it could involve changes that are adaptive and responsive, where they accept the status quo and adjust their practise to what is given (Hopwood 2021). Therefore, the effectiveness of any such reflective act may be limited by the environment in which these are undertaken. However, TPA "inspires a critical disposition to overcome irrationality, injustice and suffering through critical reflection and emancipatory action in concert with others" (Kemmis & Grootenboer 2008, p. 39). Cunliffe and Easterby-Smith (2004) contend that critical reflection is more than thinking. They argue for the exploration of emotion as embodied in the sense-making process. Experience alone does not predetermine a worker's use of reflective practices; rather it is how a worker uses experience that is crucial to understanding why some individuals use critical reflection to grow their professional learning. The dynamism of critical reflective practice is essential to continuous improvement, whereby the enactment of critical reflection enables the production of emancipatory knowledge as it aims to transform, rather than perpetuate, existing perspectives (Ng et al. 2019). In

reconceptualising learning as knowing how to go in the practice, we may observe a return to praxis as the CI operative, though critical reflection emerges as a CI practitioner.

Summary

The TPA offers a differing perspective to the prevailing discourse of learning that understands it as a cognitive psychological phenomenon, where learning is predominantly considered to be information processing. This conceptual understanding becomes problematic when considering practices, as these are most often undertaken in proximity to others, or indeed the purpose of the practise is to provide goods or services to another. The concept of learning is contested in the literature that has recorded a variety of epistemological justifications, but what is common amongst all stances is the notion of some sort of change happening. In considering learning in the context of CI methods, it is Deming's PDSA cycle that promotes a dynamic approach for ongoing refinement and change.

Contained within the work of Reg Revans, specifically that of ALS, we see features that echo those we see in Deming's PDSA cycle. Revans makes explicit the use of reflective practice as the catalyst for ongoing change and improvement. Literature defines reflection as akin to looking in a mirror, whereas critical reflection sees the worker making sense of their own actions and working towards an agentic, ethical, responsive and critical disposition. The TPA enables the worker to consider what happens as a consequence of their practice and undertake morally committed action as learning is understood as coming to practise differently. This stance is enabled through the engagement of critical reflection.

Chapter Summary

This chapter has covered three areas of literature pertaining to local government; NSW local government, CI and CI and learning. The first section of this literature review positioned local government as the third tier of government in Australia with specific responsibilities associated with public amenity, including but not limited to road maintenance, rubbish collection and the issue of land rate notices. Having described the role of local government in Australia, this chapter considered the wide use and application of quality frameworks in response to neoliberal policies by both state and federal governments. With reduced budgets and growing requirements from the local community, local government has adopted many quality frameworks that have often failed to deliver the desired results, or the results gained have not been able to be maintained. Within the last section of this chapter, the narrative moved to present the relationship of CI and learning as inextricably linked. This relationship was then reconceptualised through the lens of TPA, thereby bringing together the literatures of CI, learning and TPA for the first time. This is recognised as a contribution of this thesis to the academic literature. Engagement with critical reflection by the worker signals a return to the practice traditions notable in the works of Deming, Juran, Crosby and Imai. It identifies a return to critical praxis that offers to transform the worker/CI operative to CI practitioner and, by extension, it is possible to comprehend change in the sayings, doings and relatings of CI, led by the emerging CI practitioner and their practice.

Chapter 4 - Methodology - A qualitative approach to continuous improvement research

Theoretical framework

Introduction

I commence this chapter with a discussion of the epistemological basis of the research leading to the rationale for selecting an action research approach. A detailed overview of the research design and methods will follow and the chapter closes with a discussion of the approach for data analysis. To conclude this chapter I will present my reflections as a field researcher.

I have selected action learning sets (ALS) as the methodology for group problem-solving, as it holds many similarities to Kaizen groups. Kaizen as a modality of CI was discussed in Chapter 4. Both ALS and Kaizen generate changes or small incremental improvements in the working method (or work processes) that make it possible to improve work (Marin-Garcia et al. 2018). The participatory and structured problem-solving approach of Kaizen is again similar to that of ALS and both can offer opportunities for continuous action and change. However, the benefit of using an approach such as ALS over other approaches can be found in that there is no requirement for previous skills or knowledge of set practices by participants, it is relatively low cost and requires no expertise to facilitate. As recalled earlier in this thesis, other CI frameworks such as ABEF and service reviews are costly to introduce and maintain due to the reliance upon management consultants' expertise that consume valuable budget resources. As recorded in the local government literature (see for example: Dollery, Crase et al. 2006; Dollery & Drew 2017; Dollery et al. 2013) the early gains often fail to be maintained, resulting in a poor outcome for local government. Furthermore, ALS clearly establishes the place for problem-solving and a simplified process for doing so. This positioning of problem-solving and ownership is a key point that differentiates ALS from other frameworks, including Kaizen.

Theoretical Framework

Social Constructivism

Can socially constructed learning aid in the development of praxis in CI?

Which methodology supports group learning and shares links to CI?

Methodology

Action Research (Action learning sets)

Connect with industry to present proposed methodology to gain buy-in

Run ALS at sites that are audio recorded for analysis

Methods

Quantitive analysis

Data collection through ALS, face to face and telephone interviews

Thematic analysis of all ALS, face to face and telephone interviews

Figure 6 Diagrammatic representation of research approach

Figure 6 sets out the methodological approach adopted in this research. The initial box is labelled social constructivism. Social constructivists see learning as a social process. Argyris and Schon (1978); Jacobs (2010) succinctly articulate that meaningful learning occurs when individuals are engaged in social activities. Furthermore, social constructivism supports a societist account of practices Edwards-Groves et al. (2016) where this thesis uses the theory of practice architectures for reconceptualizing CI practices enacted within NSW local government. The second box in the diagram represents an action research approach. The use of action research creates opportunities for workers in co-operation with each other to work on solving work-based problems and addressing issues through reciprocal agreement on "actions in practice" (Edwards-Groves et al. 2016, p. 322). The last box in the diagram recognises the use of qualitative methods. Qualitative enquiry endeavours to discover and to describe narratively what people do in their everyday lives and what their actions mean to them. It is said that qualitative data provides the most insightful data available on social relationships and situations. Further, words when organised into stories have rich meaning that enable the provision of a convincing argument more so than numbers (Miles et al. 2018). In using a diagram to introduce the research methodology, I have demonstrated the manner in which each step of the methodological process supports the following one. The remainder of this chapter explores the topics of social constructivism, action research and qualitative research in further detail as these are applied to the research design and execution.

Social constructivism

The origins of constructivism are said to date back to the time of Socrates (Boghossian 2006). Socrates recognised that teachers and learners should talk with one another and interpret and construct hidden

knowledge by asking questions (Boghossian 2002). A constructivist world view has been adopted by many scholars in the conducting of qualitative research (Creswell 2003). Scholars have adopted social constructionivism to consider a diverse range of subjects, including teaching and learning (see for example Hausfather 1996; Nuthall 2007; Stabile & Ershler 2015); renewable energy (see for example Mengi-Dincer et al 2021) and entrepreneurial processes (see for example Melia 2021) that demonstrate the pragmatic ideas that can be gained through social constructivist thinking (Adams 2006b). Social constructivism is recognised as a "metatheoretical position" Gergen (1999, p. 60) which argues that, while the mind constructs reality in its relationship to the world, this mental process is influenced by history, social conventions and interactions with others (Talja et al. 2005).

In selecting social constructivism Creswell (2007); Creswell and Miller (2000) assert a researcher's goal relies upon the participants' interpretation of the phenomena being studied. The ideas contained under the term 'constructivism' acknowledge learning as an active process of knowledge construction in order to make sense of the world (Adams 2003, 2006b). How, then, do social constructivists view knowledge and learning? Knowledge is a human product that is socially and culturally constructed. It is in the interaction with one another and the lived-in environment where meaning is created. As the creation of knowledge is inseparable from the social environment in which it is formed, learning is recognised as a practice of active knowledge construction (Woolfolk 1998).

The following section discusses action research, the modalities of action research and action learning sets.

Action Research

Action research (AR) is described as a systematic method of examining behaviours in pursuit of improved practices (Duesbury & Twyman 2019). Over time the description of AR has evolved. The early work of John Dewey placed great value on the integration of theory and practice (Dick et al. 2009). Sometime later, Kurt Lewin's work with AR focussed on the development of a theory of social change. Lewin goes on to describe the AR process as "a cycle of planning, action and fact-finding as a result of the action" (Lewin 1946 p.38). Later still, in his seminal book The Pedagogy of the Oppressed, Paulo Friere discusses AR as action informed by both understanding and theory (Goodman 2014). As presented from the foci of these scholars, AR has a history of the bringing together of both practice and theory as foreground in the following definition:

> *Kemmis and McTaggart (1988, p. 5)"defined as a form of collective, self-reflective inquiry that participants in social situations undertake to improve: (1) the rationality and justice of their own social or educational practices; (2) the participants' understanding of these practices and the situations in which they carry out these practices."*

Within AR, theory and practice are considered interlinked (Dick et al. 2009; Reason 2006). Action research, as described by Chandler and Torbert (2003) is grounded in a philosophy of practical knowing

of timely, voluntary, participative, validity-testing, transformative action in the field at a given time. Further, it builds on the past and takes place in the present with a view to shaping the future. When people act, there is an intention that their action will have outcomes. They choose the actions they think will deliver the outcomes they desire. In choosing their actions they have a theory (that may be informal), to connect the action with the outcome (Argyris & Schon 1974; Dick et al. 2009). The knowledge or understandings they hold can be considered as 'theory' (Dick et al. 2009). Moreover, the author contends that theory is the aggrandisement of the activities of knowing, understanding and sense making. The AR process is one of alternating action with reflection and without action (Greenwood 2015). This description of AR and Deming's PDSA Cycle share much in common. Action Research takes the position that research cannot construct meaning without engaging in practical action. Without pragmatic action in collaboration with stakeholders there is no change and no meaningful theoretical learning (Greenwood 2015). The centrality of participation is one of the defining characteristics of AR (Arieli & Friedman 2009). The iterative cycle of action and reflection enables participants to learn from the results of their previous action and then to apply their learning as they formulate their next action. The theory that is developed is practical theory applicable to practice and tested in implementation (Dick 2015). Similarly, the cyclic process facilitates phenomena to be researched with increased understanding bringing forth new insights that facilitate continuous improvement Greenwood (2015), a position also espoused by the early quality theorists, too. This shared epistemological understanding cements the relationship between CI and AR.

Action research is characterised by different ways of knowing, with a focus on organisational improvement and change, and strives to bring forth actionable knowledge (Coghlan & Shani 2018). This is a further reason it has been selected as the research method. Knowing in this mode consists of four key principles: an overall concern for people, that it is socially derived, constructed and reconstructed continuously, that there is a focus on the uniqueness of each situation, and a values-driven approach that underpins practical action (Coghlan & Shani 2018). As such, AR consists of a number of varying modalities that may be more or less appropriate for the participants, their environment and the problem under investigation.

Rigg (2008) advises that where action research is undertaken within a public services context, the results must benefit those of the citizens (of the community) with a focus on the organisation, if not the wider system. The use of action research methodology may provide the participants of this study with an opportunity to create new practices and make changes to existing practices, such as the development of a culturally appropriate modality of CI (thus bringing the focus back to the benefit of the organisation and ultimately to the citizens of the community) (Bessant et al. 2001).

Modalities of action research

Within literature, AR is represented by a family of practices that are used in a variety of settings including: health (see for example: Bell et al. 2007; Olsson et al.2010; Sullivan et al 2014); organisation development (see for example: Aspinwall et al. 2018; Maurer & Githens 2010; Coghlan & Shani 2018);

education (see for example: Kate et al 2019; Liu 2019; Qing-li et al 2019); local government (see for example: Cuthill 2002; Garcia-Navarro 2019; Vince & Broussine 2000); community development (see for example Datta 2019; Hall et al. 2009; Nguyen et al. 2019) and agriculture (see for example Bodorkos & Pataki 2009; Siriput et al. 2018; Thoha et al. 2018). Scholars including: Dick (2015); Coghlan (2010) and Raelin (2009) describe an historical increase in the 'varieties' Dick 2015 p. 433 of AR in literature and note that this trend is expected to continue as the diversity of the situations in which AR is applied extends. Mainstream modalities are recognised as: action science, co-operative enquiry, clinical enquiry, action learning, learning history and participatory action research (Coghlan 2010). It is the concepts of empowerment, a commitment to equity, information sharing among stakeholders and the building of commitment to planned actions that are notable in all forms of AR (Dick et al. 2009). For this research the action learning modality has been selected. Action learning was discussed in Chapter 5. In the following section I detail the use of action learning sets.

Action learning sets

Critical action learning has become increasingly important in the area of business and management education, as the focus is on mobilising theory and applying it in such a way as to change individual and organisation practices (Rigg & Trehan 2004). The spirit of AL is democratic and participatory. It enables the construction of a learning space within which personal experience is brought forth, enabling an individual to move and learn (Marshall & Reason 2008). Brockbank and McGill (2003) present arguments for participating in an AL set. Firstly, the act of participating in a set considers the role that relationships play in the development of the person, rather than adopting a modernist belief in individualism. Secondly, AL recognises that as learners we share in the construction of our world, rather than believing in an objective reality. Thirdly, the power of discourse is acknowledged rather than the denial of power relations.

The actions of a set

In Chapter 3, I presented a diagram of ALS (see Figure 5) and discussed the similarity between the actions taken in sets and that of Deming's PDSA Cycle. In this section I present the practicalities of working with ALS in the workplace and as a research method. Action learning sets can be facilitated by a designated facilitator or be self-facilitated, whereby the responsibility for facilitating the set is shared amongst the set members (McGill & Brockbank 2004). In this research it is planned to facilitate the first one to two sets, with the set membership taking ownership of the process and self-facilitating the third set, with a view that they would be sufficiently skilled to continue with the sets after completing the research.

At each set every individual is said to be responsible for their learning and remains so for the issue, problem or challenge they bring to the set (McGill & Brockbank 2004). Set members do not tell a presenter what to do or how to progress an issue. They are not there to provide advice but rather to enable a deeper, more rich understanding through reflection of the problem or situation and by challenging the assumptions held by a problem-presenter, facilitating the move to resolution and potential action. In an AL set each member is recognised as an expert of their situation in terms of their context, feelings and

knowledge (Beaty & McGill 2013). A consequence of this is that other set members may have insights that the set member has not realized because of their familiarity with the problem.

Being in the midst of pressure for immediate action leaves little opportunity for reflection in the workplace (Eraut 1994; Hager 1998). In response, our embedded behaviours and assumptions become entrenched and a capacity for 'knowing-in-action' (Schon 1983) becomes well practiced. This knowing-in-action may be unreflected upon or unshared with others, if opportunities to do so are limited (Graves & Jones 2008). In participating in an AL set Brockbank and McGill (2003) discuss the capacity to employ reflective practice, which becomes the means of enhancing the quality of our work and of promoting learning and development.

In a set, the presenter is asked questions, reflects upon the discussion and commits to a course of action (or actions) to be undertaken. At the following set meeting, the presenter reports back on what has happened, the action they have taken, and the outcomes (or indeed their absence of action). That it is both the role of the presenter and the set membership to work together on establishing critical reflective practice is encapsulated in the following:

> "*Whether each participant wipes clean their own mirror, or whether this is done for them by another member of the set [...]*" Revans (1983 p. 70)

The move to critical reflection differentiates the ALS run in this research from those discussed in literature (Revans 1982, 1983, 1997; Yeo & Gold 2011) as it foregrounds critical reflective practice. The usual approach to ALS is the inclusion of reflection. Reflection is often described as a "mirror image" (Cunliffe & Jun 2005, p. 226). In the traditional format of an ALS (see Figure 6) the act of reflection-on-action is of significant importance (Brockbank & McGill 2003). However, while reflection may result in effective problem-solving, this alone may not deliver the necessary learning Beaty and McGill (2013) or more so, coming to practise differently (Kemmis 2020). Cunliffe and Jun (2005) describe reflection-on-action thinking as that which does not question the underlying assumptions on actions. It is a form of calculative thinking aimed at closure and categorisation as a way of understanding objects and situations; that is, thinking that does not question underlying assumptions. The counter point to reflection is meditative thinking or critical reflection whereby we open ourselves up to the "hidden nature of truth" (Cunliffe & Jun 2005, p. 227). This requires engaging in the act of questioning the basis of our thinking, surfacing underlying personal assumptions and examining taken for granted socialised constraints that guide and shape these assumptions (Hibbert 2012; Reynolds 1998).

The critical arguments I have presented in Chapter 5 present the need for critical reflection in learning. Resultant from this standpoint I have created an opportunity for learning through the inclusion of another stage in the traditional AL set cycle (see step 6 in Figure 10). In this research all problem-presenters will be asked probing questions that I anticipate may trigger a more critical, reflective response. These questions have been adapted from Weinstein (1999) and are located in Appendix 7.

In this section I have outline the method of AR and specifically the modality of AL sets and provided arguments supporting the selection of this approach. Specific attention has been given to exploring the sequence of activities that underpin the AL set cycle describe by Revans. Encouraged by the reflective practice literature, I have chosen to modify Revans' original Cycle to include critical reflection. My reason for doing so is to provide a framework or trellis affording the participants an opportunity to be able to practise a different approach to learning. In enacting a critically reflective approach to problem-solving we are said to open ourselves up to personal learning (Jude 2018).

The planned approach for data collection is the use of ALS supported by the researcher over a course of three quarterly meetings. In each of the meetings the research participants would be supported through the availability of resources developed and provided by the researcher. These resources include exemplars of a variety of questions to elicit information, a worksheet to record questions the participant is yet to ask the problem-presenter, and an additional worksheet to record their own reflections of participating in the set. These resources are available in Appendices 6 and 7. The initial set would be facilitated by myself. I would look for facilitators from within the participant group to facilitate future cycles of the AL sets. When this occurred, my role would shift to that of observer - thus fulfilling significant tenants of AL sets: those of human agency and learning (Pedler & Trehan 2008).

Having situated AR as the methodology, in the following section I present an overview of the qualitative tools that will be used as adjuncts to the ALS. I commence the discussion with a précis of the qualitative interview. I have chosen to use semi-structured interview questions in participant interviews with a mixture of face-to-face and telephone interviews, both of which were audio recorded in-situ.

Qualitative methods research

Qualitative enquiry allows the researcher to hear the voices of those who are often marginalised by the dominant social order, because qualitative methods ask not just 'what is it?' but more probing questions such as 'explain it to me – how, why' (Hesse-Biber & Leavy 2005). It is the in-depth nature of qualitative methods that allows people to express their feelings and experiences in their own words.

In this work I have employed an ethnographic research approach (see Appendices 1, 2, 3). While once considered the study of culture in anthropology, it has shifted to sociology. This research approach is interested in how people create meanings and behave within their cultural contexts. Ethnography enables the researcher to understand the "contexts of practice and the cultural rules that people have for making sense of the worlds" (Daly 2007, p. 85). Similarly, we find Kemmis et al. (2012, p. 36) describe "[…] how practices coexist and are connected with one another in complexes of practices in which each adapt and evolves in relation to the others with local and regional variation." An ethnographic method is characterised by: researchers working in the field, a focus on learning directly from others, adopting a semi-structured approach that enables flexibility and new ideas to be developed, and aiming to produce timely insights (Liamputtong 2020). In academic research Liamputtong (2020) notes that in-depth

interviewing has seen prolific growth as a qualitative research method that is used extensively in ethnography, participatory action research, life and oral history and case study research.

In the following section I discuss the use of action research as the method of data collection. I commence with an historical positioning of action research, then move to identify the modalities of action research.

The qualitative interview

What constitutes a 'good interview'? A good interview includes the asking of questions that will produce knowledge and enhance the interpersonal relationship between researcher and participant (Brinkman & Kvale 2015; Kvale 1996). Often conducted face-to-face, the qualitative interview happens between the researcher and the agent with a view to understanding the agent's perspective on their lives, experiences or situation as expressed in their own words. Such an in-depth interview is modelled upon a conversation of equals rather than a formal exchange of question and answer (Taylor et al. 2016). The in-depth interviewing technique requires the researcher to establish rapport and develop a detailed understanding of the agent's understanding of their experience and perspectives.

Taylor et al. (2016) contend that every research approach has strengths and weaknesses. They acknowledge that participant observation offers a unique opportunity to understand and listen to agents at a site, however, this may not be possible in all circumstances. Recently, with the COVID-19 pandemic spreading globally, numerous workplaces were locked down, requiring staff to work remotely. Therefore, not all methods are suitable for all purposes and the choice of method must be evaluated according to the research interest, practical constraints of both the researcher and agents, and the circumstances of the site and agents to be studied.

In qualitative research an *N=1* can offer an illuminating sample (Taylor et al. 2016). However, the researcher may wish to forgo an intensive, singular setting or agent to seek breadth that comes from engaging with a variety of agents and sites. Interviewing multiple agents enables the building of general theories about the nature of social phenomena. Analytical induction is considered one method of constructing theories from qualitative data that relies upon a considerable number of agents (Creswell & Miller 2000; Robinson 1951). Interviewing does have its limitations. For instance, scholars Deutscher (1973) and Tavory (2020) found differences in agents' words and acts, therefore researchers are cautioned that differences between an agent's words and actions can exist. To observe agents in their everyday lives provides the researcher with the context necessary to understand many of the perspectives that may be of interest. In their comparison of agent observation and interviewing, Becker and Geer (1957) and DeWalt and DeWalt (2011) established that interviewers may misinterpret agents' language, since they do not have the opportunity to study its common usage; agents may be unwilling or unable to articulate many things of importance and it may be only through observation that the researcher can learn about these things; interviewers make assumptions about things that could have been observed and some of those assumptions may be incorrect. Despite these limitations researchers are encouraged to undertake

interviewing as a way of studying social life. Although we cannot take an agent's story at face value there is an opportunity to learn about how the agent experiences life through analysing how they talk about their experiences and what they are doing with their words in interview (Taylor et al. 2016).

The use of semi-structured interview questions

The purpose of interviews is to get to know the interviewee better, where the purpose of that knowing varies according to the research question and the epistemological framework within which the research is being conducted. Interviews have been described as "special conversations" that are interactional (Holstein & Gubrium 2003, p.3). Interviews are the most commonly used data collection method (Taylor 2005) and have been used in about 90% of qualitative research settings. Interviews may take many forms, from the structured to the semi-structured and unstructured, bookending each end of the continuum (Qu & Dumay 2011). Structured interviews are guided by a stringent set of questions that are asked to a research participant. This method often produces quantitative data (DiCicco-Bloom & Crabtree 2006).

An unstructured or non-standardised interview is so named due to the lack of pre-structured or standardised procedures (Brinkman & Kvale 2015). This approach originates from the ethnographic tradition of anthropology where the researcher makes observations, takes field notes and poses questions based upon observed behaviours, interactions and rituals (DiCicco-Bloom & Crabtree 2006). In comparison, the semi-structured interview is conducted in conjunction with the collection of observational data and may be the only source for qualitative research. It attempts to understand themes of the lived world of interviewees from their own perspective. While similar to an everyday conversation, it differs insofar as it is a professional interview with purpose and involves a specific approach and technique. The semi-structured interview is usually pre-arranged for a specific time, date and location. By its very nature the semi-structured interview is not an open conversation nor a closed questionnaire. It is conducted using an interview guide that has specific themes as its foci and may also include suggested questions (Brinkman & Kvale 2015).

The rationale to use semi-structured interviews has been recorded in literature Carruthers (1990) as offering the researcher deeper understanding of the data. Additionally the opportunity to meet with the respondents again often time for a greater length of time coupled with the privacy offered by anonymity (of the interview) can create a space for the sharing of information that may not be usually be shared in a public forum such as an ALS. Schatz (2012) contends that the semi-structured interview provides opportunity for the comparison of ideas and is an opportunity for the researcher to validate the substantive finding. For the researcher a chance to develop a personal connection with the interviewee through enabling the interviewee to take a pathway in the interview that they feel is important to enable them to elaborate on their previous thoughts and actions. Lastly this notion of gratefulness and satisfaction of the researcher at providing an opportunity for workers to not only unburden themselves with work-based problems but to provide them the opportunity to express themselves in a forum that values and validates their input. It is the above rationale that this research is including the use of semi-structured interview.

Corbin and Morse (2003) described the interview process as an exchange in which the participants share personal information in exchange for the attention of the interviewer, validation, an opportunity to unburden themselves and a desire to help others by sharing their experience (Maiter et al. 2008). As a very specific type of professional interview, the research interview entails an asymmetrical power relation. Brinkman and Kvale (2015) contend the research interview is not an open, everyday conversation between equal partners. The interviewer defines and initiates the interview situation, determines the topic, poses questions, decides which responses to follow up on and controls the conversation. Additionally, the research interview is a one-way dialogue where the role of an interviewer is to ask questions and the role of interviewee is to answer. An interview may follow an agenda that is more or less hidden from the interviewee. The interviewer has control over the interpretation of an interviewee's answers and in response to this an interviewee may withhold information or indeed talk around the subject matter. At times such as this, the interviewee may question the interviewer and protest against specific questions or may even withdraw from the interview.

In line with the above methodological discussion, the justification for interviewing is supported by Kvale (1996, p. 42) who describes the qualitative research interview as a "construction site of knowledge". As part of this research's data collection activities, participants were given the choice of participating in either a face-to-face or telephone interview. The majority of participants selected the latter option. Shuy (2003) discusses the benefits of telephone interviews under three themes: cost; control and quantification of results. The author notes that conducting telephone interviews in most cases is less expensive than face-to-face interviewing. Furthermore, situation variables are controlled more easily in a telephone interview. Finally, the ease of quantifiable results is said to arise from the ability of telephone interviews to be completed in a shorter amount of time as additional arrangements such as travel and interview locations are redundant. However, Shuy (2003) also points to a number of elements where a face-to-face interview has been shown to be more appropriate. These have been noted as instances where response accuracy is generated through an everyday communication context, when an interviewer is discussing complex issues, or the interviewee has a hearing impairment or belongs to a minority group. With these advantages and disadvantages clearly summarised, Shuy (2003) contends opportunities continue to exist to improving understanding of the differences between both modes of interviewing.

As part of the interviewing protocol, the interview questions were included to afford participants the opportunity to consider their responses prior to the interview and allow the interviewees time to reflect on their action after each ALS. Qu and Dumay (2011) suggest that this approach is beneficial as the interviewer is supplied with valuable data in the way interviewees perceive the phenomenon being studied. This opportunity to reflect-on-action is considered important to commence the first steps along the continuing (internal) dialogue of reflective practice. The set participant interview questions are located in Appendix 9. Questions posed to the problem-presenters may also be found in Appendix 9.

Participant interviews

Qualitative interviews are traditionally conducted on a face-to-face basis (Novick 2008; Qu & Dumay

2011). This naturalistic encounter offers the interviewer an opportunity to build and maintain rapport with interviewees that is said to enable the gathering of rich data (Farooq & de Villiers 2017; Shuy 2003). During face-to-face interviews, an interviewee's body language and cues from the physical environment can add to a researcher's understanding (Gillham 2005; Irvine et al. 2013). Some scholars have argued against telephone interviewing due to its lack of contextual information. Farooq and de Villiers (2017) and Gillham (2005) contend that this argument has not been subjected to rigorous academic investigation. Indeed, qualitative researchers who have used telephone and face-to-face interviews have not found evidence to support the bias against the use of telephone interviewing (Oltmann 2016; Vogl 2013). This research has used both telephone and face-to-face interviews.

Literature acknowledges that a face-to-face interview enables the researcher to meet the interviewee and allows for the conducting of rapport building exercises prior to the interview commencing. In conducting both types of interviews I actively engaged each participant in small talk, provided an overview of the process and sought their consent to the digital recording of the interview. In addition, each participant was advised that they may terminate the interview at any time without penalty. These acts helped to break the ice and create a friendly environment and are recognised as favourable to an unreserved conversation (Oltmann 2016; Sweet 2002). However, there is always the risk that building too much rapport may result in the interview drifting and losing focus. An extended time building rapport may take valuable time away from the interview itself and therefore it is a challenge for the interviewer to find a balance.

How does literature record the shortcomings of both modes of interviewing? Vogl (2013) compared 56 face-to-face interviews with 56 telephone interviews. The research found no significant difference in the duration of the conversation, total number of words spoken, the proportion of the words spoken by interviewees, the response numbers or the amount of clarification required between the two modes of interviewing. Vogl (2013) concluded that there was no difference between the level of rapport built between interviewer and interviewee or the motivation of the interviewees in either mode. Similar results have been published by Trier-Bieniek (2012), Glogowska et al. (2011) and Oltmann (2016), all of whom have used qualitative telephone interviews.

Benefits of the telephone interview

It is argued that telephone interviews provide a more balanced distribution of power between the interviewer and interviewee (Oltmann 2016; Vogl 2013). This offers the potential for interviewees to speak openly and may provide a greater sense of control to direct the conversation towards areas the interviewee considers important. By way of contrast, Holbrook et al. (2003) and Trier-Bieniek (2012) discuss how participants are likely to censor their responses in a face-to-face interview as a way to protect themselves. Researchers have found that when offered a choice, many participants will elect to participate in a telephone interview rather than a face-to-face interview (Farooq & de Villiers 2017; Novick 2008; Sturges & Hanrahan 2004). A telephone interview removes visual distractions and may also reduce some biases of personal appearance and cultural behaviours. While a researcher may develop the skills to

overcome these disadvantages and avoid attributing stereotypes based on visual traits, Vogl (2013) suggests the same cannot be said of the interviewee. Furthermore, conducting telephone interviews is considered to be more time-efficient as it facilitates a quick turnaround of participants, assists in obtaining large sample sizes and offers many ways to recruit interviewees (Kvale 1996; Trier-Bieniek 2012). Telephone interviews are understood to offer a perceived degree of anonymity and privacy to interviewees and interviewers alike (Farooq & de Villiers 2017; Sturges & Hanrahan 2004). The telephone interview also enables the interviewer to unobtrusively note follow-up questions while the interviewee is speaking. Note taking is considered a necessary skill for successful qualitative interviewing (Qu & Dumay 2011). Lastly, being interviewed on 'home turf' is more likely to engender a sense of relaxation and comfort for the interviewee - a convenience that telephone interviews allow for (Farooq & de Villiers 2017).

Benefits of the face-to-face interview

In conducting face-to-face interviews, the interviewer is able to visually access the interviewee's natural environment that allows for the collection of contextual data that may be useful (Miles et al. 2014). A requirement to understand an interviewee's natural environments harks back to traditional ethnographic qualitative research scholars (Sturges & Hanrahan 2004). The choice of interviewing mode depends upon whether the researcher is able to collect contextual data separately from the interview. An interviewee's English language skills can cause a researcher to re-evaluate their interviewing mode. Different cultures and nationalities may be more comfortable to be interviewed face-to-face, particularly when they have not met the interviewer in person previously (Farooq & de Villiers 2017). A face-to-face interview may be more accessible to a researcher who has little familiarity in discussing sensitive and/or work-related issues with colleagues and inexperience using the telephone and other communication technology in qualitative research (Tucker & Parker 2014). Not all interviewees may have access to software such as Skype or Zoom on their computer. The organisation's IT department may be reluctant to spend funds on the purchase of the software license and manage both security and access. It is usual for face-to-face interviews to be conducted in a meeting room or office, whereas the telephone interview, if scheduled to occur while the interviewee is at work, is likely to occur while the interviewee is at their desk in their cubicle that offers limited privacy (Farooq & de Villiers 2017).

The literature reviewed has presented arguments where traditionalists use the face-to-face interview in qualitative research. However, the benefits and losses of the traditional approach must be evaluated compared to the use of telephone interviews. Scholars have provided evidence that both modes are able to produce quality data. A clear benefit of the face-to-face interview is its ability to provide the researcher with site specific contextual data. A telephonic interview has the advantage of being less time consuming and more cost effective. The researcher should consider the objectives of their research and the nature of the data they require to answer their research questions and then consider the mode of interviewing most suitable to their work.

In using the TPA as the critical lens for analysis I am compelled to consider practices as embodied, material and affective. Such a stance necessitates the inclusion of a methodology that facilitates the elicitation of these elements through the research practice of interviewing. One methodological challenge faced by qualitative researchers is attempting to bring embodiment to their qualitative research (Chadwick 2017). With analyses concentrating on language, discourse, text and talk there have been concerns raised as to what has been left out. Scholars have attempted to address this concern by a variety of differing approaches. As a result, extra-discursive 'turns' in the social sciences now include 'turn to bodies', the 'sensory turn' and the 'affective turn' (Chadwick 2017). The work to translate these theoretical insights into methodological approaches has seen significant bodies of work consider embodied experience in reductive terms where the human body is described as a thing (Chadwick 2017).

Calls for more 'full-bodied' research have been made, see for example: Sandelowski (2002); Ellingson (2017). In response scholars have employed differing methodological strategies in their qualitative research. Embodied reflection has emerged as the predominant way in which researchers have attempted to embody their research practices that makes visible their own position as "embodied selves" (Sandelowski 2002, p. 108). This focus on the researcher becomes problematic as it marginalizes the experience of research participants. Other researchers have sought to embody qualitative research through interviewing techniques and strategies. For instance, Harris and Guillemin (2012) suggest the use of sensory questions, that is, asking research participants how something felt. The use of cue cards, photos and sound recordings have all been used to trigger accounts of embodied sensory experiences (Chadwick 2017). With calls for embodied research, how is the researcher to achieve this when their qualitative approach is the use of semi-structured interviews? Does the use of a voice recording device add or detract from the ability to the find the 'body' in the participant voice?

Voice has been framed in the social sciences as way for agents to express their experiences and desires (Gallagher 2019). The use of recording devices creates social realities that the qualitative researcher explores in their analysis. The recording device is accepted as capturing, preserving and binding the natural setting of the interview and is considered a tool to reduce bias, because the recorder has captured the natural interaction (Lee 2004). The recording of conversation necessitates the negotiation of cultural ideas about conversation and a Western desire to record reality. Indeed, Wenger (2002) has described his own experience when working with older research participants and their reluctance about the use of recording devices. Nordstrom (2015) highlights that suspicion of the use of recording devices can be linked to race, age, class, culture and politics, even though qualitative research literature does not acknowledge this.

In our interactions with others we may present ourselves in a more, or sometimes less, favourable way than may be the case. In the circumstance of an interview the participant may attempt to gain the interviewer's approval and manipulate their own behaviour and the image presented to others (Al-Yateem 2012; Coombes 2019). Al-Yateem (2012) contends that the way we act during an interview and how we

present ourselves may be different from what we are or how we would usually behave. Furthermore, Al-Yateem (2012) and Woźniak (2014) suggest that the effects of recording may be amplified in group interviews where participants are asked to share their ideas, concerns, opinions and experiences. The interview may become thornier when the added influences of status, position, culture and economic status come into play, or when the participants know one another socially or in the workplace. Al-Yateem (2012) notes that participants were less relaxed in these circumstances and obtaining high levels of conversation proved more difficult when recording started. Groups of professionals who worked in the same department or site were more actively engaged in group discussion when recording ceased. Al-Yateem (2012) recognised the phenomena she had observed through the action of audio recording as similar to the Hawthorne effect (see for example Sedgwick & Greenwood 2015; Fetters & Rubenstein 2019).

While there is no definitive answer as to whether or not audio recording the interview significantly impacts on the quality of the data, researchers are encouraged to critically consider ways to reduce the influencing factors. Field observations offers insight into behaviours and the environment and is practiced across diverse disciplines (Fetters & Rubinstein 2019). Thick descriptions obtained from the field and empirical data from multiple sources to contextualise individual behaviour enables the researcher to interpret meaning, and aids in the identification of patterns and salient points (Duron & Giardina 2018; Fetters & Rubinstein 2019).

In this section I have considered the impact of in-situ audio recording on the practice of data collection. While literature acknowledges the usefulness of such an approach it also cautions against the use of the data without establishing the context in which it was collected and encourages researchers to use additional sources of rich data such as field observations. Race, age, cultural background and politics have been recognised as influential in the richness of data collected. The use of audio recording situates the research participant at a specific site and time, and when considered in context enables the researcher to 'see' the interviewee as more than 'voice'.

While a university requires a researcher to indicate how many interviews will be conducted as part of the process for gaining Human Ethics approval, Taylor et al. (2016) contend that the size of the sample in an interviewing research approach is something that should be determined towards the end of the research. An inverse relationship exists, where the greater the number of interviews conducted with each agent, the fewer agents will be required to obtain enough data. It is the potential of each interview to assist the researcher in developing their theoretical insights into the social life being studied. After completing several interviews, Taylor et al. (2016) recommend that the researcher vary the type of people being interviewed until a broad range of perspectives are reached. At that point the researcher is able to determine when no new perspectives are yielded. A university necessitates researchers de-identify data used in their research. Few legitimate reasons are fulfilled in publishing agent's names. The risks however are substantial: embarrassment of the agent or others closely associated to them, legal issues, boastfulness and concealment of important information and details (Taylor et al. 2016). At the point of

agreeing to participate in this research all agents were provided with Informed Consent and Participant Information sheets in line with University of Wollongong ethical research protocols.

In the next section I will discuss the challenges in using qualitative data and in particular the challenges of coding the data I had gathered when I was using NVIVO software.

Working with data

Qualitative data analysis is an intuitive and inductive process and it is in undertaking these tasks that the researcher is said to gain a deeper understanding of what they have studied and to continually refine their interpretations. Researchers also draw on their firsthand experience with settings, agents and documents to interpret their data. Proust stated, "The real voyage of discovery lies not in seeking new landscapes but in having new eyes" (cited in Gioia 2021, p. 25). It is by immersing themselves in the data that the researcher attempts to understand what it is they have gathered (Liamputtong 2020).

Literature (see for instance Creswell 2007; Creswell and Miller 2000) contains numerous approaches to analysing qualitative data, including content analysis, thematic analysis, discourse analysis, narrative analysis and semiotic analysis. Each one makes significant contributions to qualitative research (Liamputtong 2020). Rapley (2016) suggests that researchers commence with an explicit scrutiny of sample data relating to a particular issue. The explicit inspection is said to assist the researcher to identify and reproduce a refined theoretical description of the phenomena. This shift in focus from the words and observed actions enables the exploration and explanation of the underlying or broader meaning, rules, patterns and structures. Miles et al. (2014) recommend that researchers commence data analysis early, with the continued movement of back and forth between thinking about the data already gathered and generating strategies for the collection of new/better data. Other qualitative researchers agree with the ongoing process of interweaving data collection and analysis (see for instance Coleman 2014; Holloway and Galvin 2017; Liamputtong 2009; 2020; Rivas 2018). The volume of data generated from qualitative research can create challenges in its management and the ability to draw conclusions. By its very nature, qualitative data appears in the form of words that are rich and thick with multiple meaning and this may make data analysis challenging (Creswell 2015; Liamputtong 2020).

Informed by literature, the qualitative data was gathered using a variety of sources: digital audio recordings of each ALS and semi-structured interviews. Field notes and the action of notetaking during participant interviews were additional sources of data. Field notes were written during and after all interviews and during and after each ALS. The initial notes were brief and captured mostly the nuances not readily recorded in a textual transcription, as well as rich descriptions of each site. A short time afterwards and following time for reflection, further detail was added to field notes. All interviews were transcribed using a transcription service and the transcriptions were read in conjunction with field notes for accuracy and additional richness.

Codes and coding in qualitative analysis

Codes refer to labels that assign symbolic meaning to the descriptive or inference gleaned from information gathered during research (Miles et al. 2014). The codes may be generated during the actual coding process. Coding is the process where researchers define what is happening in the data and commence their journey of making meaning of it. In carrying out coding researchers name chunks of data with a label that categorises it, summarises it and accounts for it (Rapley 2016). The labels attached to a chunk of data may be a descriptive label such as 'sayings', or more complex and evocative, for example a metaphor (Miles et al. 2014). The act of coding is considered the first step for researchers to move beyond solid data to the construction of analytical interpretations (Coleman 2014; Liamputtong 2020). Codes enable researchers to uncover recurring patterns. From these patterns, similar codes are bundled together to generate a smaller number of categories or "pattern codes" (Miles et al. 2014, p. 73). Elliott (2018) contends that these later codes are said to be more interpretative and require a degree of inference beyond the data. Pattern codes are also referred to as themes in qualitative data analysis. Therefore, we have codes at a primary level and categories or themes at a secondary level which are formed from the analysis of codes.

For descriptive purposes codes enable analyses to be done later, such as male/female, date and site. While it may be tempting to code for as many attributes as possible to facilitate later queries, Richards (2015) avers that excess information makes it difficult to see the data clearly and therefore cautions against using an excessive number of codes. In addition, at the beginning of the coding stage a researcher may find they have created a lot of codes which may be both descriptive and repetitive. Liamputtong (2020) advises that codes will change as the researcher delves further into the data and the end codes may be different to those used at the beginning. The final number of codes a researcher achieves is dependent upon many things, for instance, if everything in the dataset is coded and whether the researcher has adopted the use of emergent codes (Elliott 2018). Creswell contends that use of priori codes can limit the analysis of data to prefigured codes, rather than encouraging the researcher to be more receptive to the use of additional codes that emerge during analysis (Creswell 2015). An emergent code may be specific words offered by a research participant or a concept that the researcher has read about in literature as part of their preparation to undertake the research (Elliott 2018). A pragmatic researcher is recognised as using both in the project of their research.

Software such as NVIVO has become popular in qualitative research and it is acknowledged as offering multiple benefits. It makes the counting of codes and stratification of data easier. It has the ability to pull together all the data that has been coded with a specific code that enables the researcher to review it all together. It is also said that using software makes coding easier, so much so that it may result in a proliferation of codes beyond the level to which a researcher is able to deal with them usefully (Richards 2015; Richards & Richards 1994).

How do qualitative researchers enact practices of coding for reliability and credibility in their data? Reliability is considered to be the consistent application of codes over time. In undertaking a review of

their coding, a researcher should consider where codes differ and reflect upon any underlying reasons or unclear definitions of coding labels (Elliott 2018). However, Richards (2015) notes that coding is an iterative process due to the different understandings that develop through the data where earlier data may be recoded or code labels refined over time. For some researchers the notion that there is a 'right' answer to coding is antithetical to the project of the qualitative researcher. In the coding of data "the aim is not to produce a perfectly consistent coded set" because "The coding of data is undertaken to manage data rather than facilitate enumeration" (Spencer et al. 2014, p. 278). The task of coding is to produce a meaningful account of the phenomena that enables the answering of the research questions and to produce this account in a systematic and transparent manner that facilitates the reader understanding how concepts, themes or categories were developed, and then to make an assessment of the analysis (Spencer et al. 2014).

Data Sources
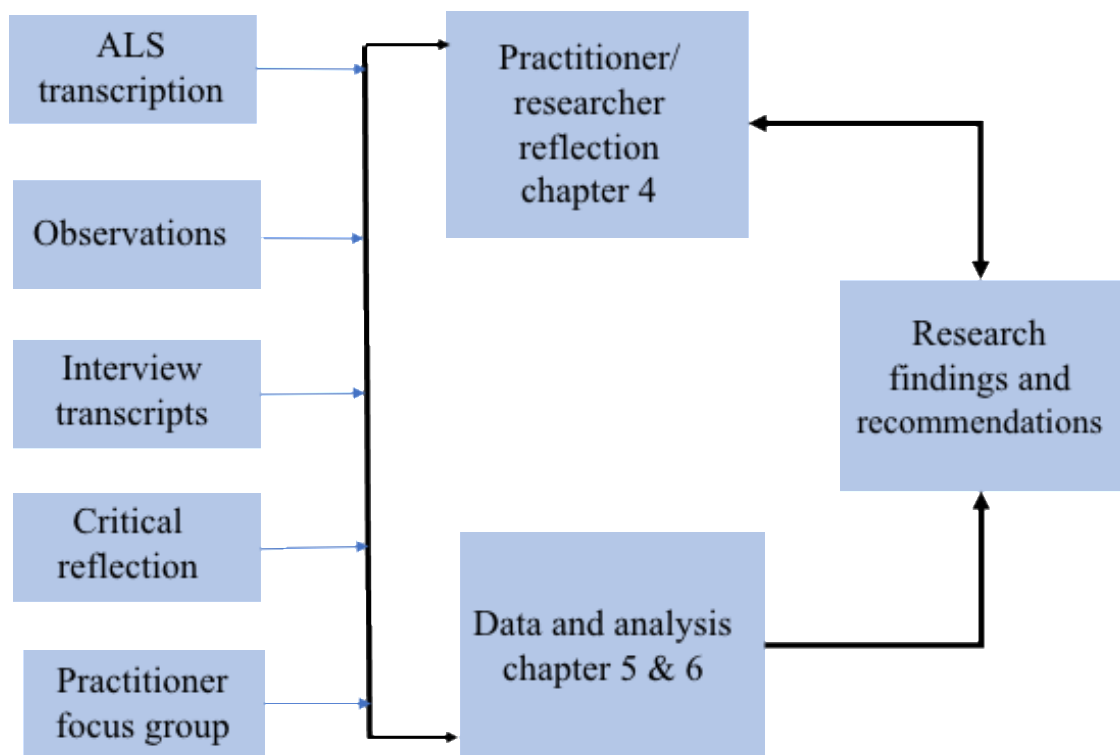
Figure 7 Sources of research data

Figure 7 represents the planned approach to data coding and structure for analysing data. The use of multiple inputs has aided in the development of a critical reflection by the researcher that considers the dual roles that can seem to be in conflict with each other yet how, in discussing these in tandem, they have worked to complement each other. Through conducting two ALS each with Crop Swap and workers from CityView Council, interviews and a CI practitioner focus group, this research seeks to identify and analyse the conditions under which the CI practitioners enact their practice. This is presented in Chapter 5, and the analysis focuses on how the ALS practices replaced existing site practices and enabled new

practices to be enacted. The discussion presents an understanding of practitioner and worker learning that is interpreted through the lens of TPA.

Reviewing the data coding approach

As the data was collected, I commenced coding using NVIVO software. In my work plan for this dissertation, I had anticipated that the coding would be completed within a few weeks of concluding all ALS and interviews. I had used a system of codes and themes using the framework detailed by Miles et al. (2018), as discussed in the preceding section. It became apparent that the data once coded into the themes of 'sayings', 'doings' and 'relatings' was somehow missing 'something' and did not provide me with a true sense of what I had observed. As Richards (2015) contends that coding is an iterative process, I returned to NVIVO and the previously coded data and broke it down into smaller chunks for analysis. The coded data was missing the contextual factors and the thick descriptions of cultural-discursive, material-economic and social-political arrangements of each site. To overcome this, I resolved to read the coded data of the 'sayings', 'doings' and 'relatings' in conjunction with the arrangements that existed at the site, as these are intertwined (Kemmis et al. 2012). As a result, I abandoned coding with NVIVO. To represent the data most effectively required the writing up of each of the ALS that included the architectures of practice and the details of the site that highlighted those cultural-discursive; material-economic; and social-political arrangements, where the points of analysis could be determined by looking at the practice and the intersubjectivities at the site. To do this necessitated a constant 'zooming in' and 'zooming out' on each of the various set practices. This act of bringing practices to the fore is not a new phenomenon. Nicolini (2009, p. 1392) discusses this and provides the researcher with a framework for "study, analysing and re-presenting practice".

The framework I developed to code the data necessitated the zooming in on the practice as described by Nicolini (2009). This assisted in identifying the intricacies being played out and then zooming out to gain a wider field view of the intersubjective space of the sayings, doings and relatings, and the further consideration of the architectures that were in play at the time. Some of these intersubjectivities were recorded in the audio file, such as local language games, and other intersubjectivities required to be recorded in field notes, such as body language. I can draw a parallel with the lens of a camera switching from a micro lens to capture a picture of a flower and then switching to the macro lens to capture the garden the flower is part of; this image was constantly in my mind's eye as I reviewed the data. This way of analysing the data resulted in the development of a number of vignettes, each one a unique story. Together the vignettes came together to produce a rich story. This approach was labour intensive and necessitated more than audio files. Looking for the intersubjectivities necessitated multiples acts of critical reflection using numerous points of data from field notes, interview audio files and transcripts.

Practitioner-researcher

Drawing on my experience as a CI practitioner and now researcher in the practices of CI, I aim in the following section to present the important process of recruitment for this research that has relied upon my

existing relationship with a CI practitioner group. Through my personal involvement as a practitioner, I bring with me an existing set of mental activities and practices that connect me to a community. My aim was to approach each site with an attitude of curiosity rather than to reinforce my own assumptions and beliefs. Anteby (2013) discusses how researchers will detach themselves from the narrative of a field, and that to do otherwise is recognised as "antithetical to professional distance" (p. 1278). This perceived problem - of writing on personal involvement and the taboo of telling our own stories - is said to stem from an epistemological misunderstanding of the very nature of field research (Anteby 2013). The misunderstanding entails conceptualising distance and involvement on opposite sides of a continuum. The dual acts of upholding distance and involvement are considered crucial when the researcher is engaged in field work, notwithstanding that the role of telling our stories is necessary to generate new theoretical insights (Anteby 2013; Chavez 2008; Fleming 2018). Critics of the inclusion of practitioner-researcher stories suggest that they represent the area of research in a more positive turn than would a non-practitioner (Chavez 2008). By way of example, consider Orr (1996) and the study of Xerox field technicians and the representation of the changing nature of work. Orr worked as a technician at Xerox prior to embarking on his research. Darr (2006) questions the quietness of Orr in considering how the technicians might contribute to overcharging clients, a practice that is described in other less 'involved' research of technicians and salespeople. The implication is that an involved insider might lack neutrality. This may be cause for concern for some scholars who call into question a researcher's judgement and ultimately their results (Anteby 2013; Fleming 2018). Alongside concerns of neutrality a field researcher may also face pushback or even rejection from those in the field who may feel betrayed and intruded upon (Anteby 2013; Hughes 1974).

In telling their own story the discerning researcher can build on their personal involvement to develop insights that can contribute to and sharpen analysis, notwithstanding the need to uphold distance to enable those insights to emerge, as involvement may derail research endeavours (Faulkner & Becker 2008; Malm 2018). Anteby (2013) recommends "organisational scholars should consider the legitimacy of the scholar to be part of the story *and* to study it" (p. 1285 emphasis in original).

The following section outlines the recruitment process and introduces the two groups of research participants. The participants were sourced from NSW local government in metropolitan Sydney. I have labelled one group as CI Practitioners; the second cohort of participants consisted of NSW local government workers from CityView Council. The diverse nature of the roles undertaken by the workers of CityView saw this group labelled as heterogenous.

Recruitment of participants

Recruitment strategies

Qualitative research methods are said to rely on interviews with a limited number of individuals with special characteristics (Patton 2002). These characteristics are dependent upon the researcher's

predefined selection criteria that may include, for example, gender, age, nationality or a specific trait such as professional/life experience (Morse 2007). The selection criteria developed by the researcher is assumed to be the one best able to accommodate their research objectives. After defining their selection criteria the researcher must then identify appropriate research sites and potential informants. Some recruitment sites may be accessible without special permission, whereas others may require researchers to navigate complex administrative systems prior to meeting any potential research participants (Kristensen & Ravn 2015). When the sample criteria apply to an existing group, the task of identifying, approaching and motivating them to participate remains often the responsibility of the researcher. To directly approach an identified group necessitates a strong link between the recruitment criteria, activity or site (Kristensen & Ravn 2015). Apart from individualistic characteristics for recruitment when using the TPA as the chosen ontological approach necessitates the researcher to access organisational contextual documents; the capacity to discuss with research participants and their various work practices; undertake observations and to facilitate ALS. Together these must be considered when recruiting research participants and approaching possible research sites.

The recruitment phase of the research project is recognised as being partly unpredictable due to its dependency on responses of others. Kristensen and Ravn (2015) describe the recruitment of research participants as "emotional work that should not be underestimated" (p. 725). The recruitment process requires tenacity to follow up phone calls that are not returned, the repeated sending of emails and reminders and the act of continually having to sell the research project to those whom the researcher do not know. Embarrassment and faintheartedness may result from repeatedly being turned down or a slow recruitment process, as the researcher recognises that without participants and their contribution, they have no material (Kristensen & Ravn 2015). Those that respond positively to our requests for interview are those whose lives and experiences ultimately inform the material of the research.

Issues encountered

Following the completion of the first ALS with Crop Swap and in preparing for the second cycle I was able to establish through a telephone interview that one of the participants from Cycle 1 was experiencing some health issues and would no longer be participating in the research. Subsequent follow up calls resulted in four other participants withdrawing from the research as they had moved on to roles and did not feel it appropriate to continue to participate in the research. At this time I had no research participants remaining and was left to considered new recruitment strategies.

In the following section I will introduce the two groups of research participants.

CI practitioner group

Crop Swap

The CI practitioners were sourced from a group referred to as Crop Swap. As mentioned above I had been a participant in this group while working in NSW local government. This group has been in operation for a number of years. The types of projects undertaken by the practitioners has seen many shifts in focus over the years of the group's existence. The rise and fall of differing modalities of CI have been evidenced, including the wide-ranging adoption of the Australian Business Excellence Framework to a more recent embracing of service reviews. The range of CI modalities adopted over time has seen some long-standing Crop Swap members trained in the use of Lean methodology, and as such those individuals have been accredited "belt" status ranging from green to black. However, Laureani and Antony (2012) note that there is no global certification standard for Lean. Others have participated in training in the application of ABEF, while others have had no training in any particular methodology. While this may be problematic to industry, in this context it provides an indication of the changeability of CI practices in NSW local government, possibly resulting from poor results of one modality they shift to another chasing improvement goals. In interviews conducted with practitioners, it was noted that the range of modalities in use has narrowed to the application of a few tools such as process mapping. This notion is explored in the case study of Chapter 5, where empirical evidence gathered from the CI practitioners has highlighted the decontextualised use of CI tools has excluded the continuous flow of CI activities.

Crop Swap meets once every quarter (though this is not fixed, as determined by the past schedule of meeting dates). Meetings may occur outside of this timetable when, for example, a practitioner has the opportunity to showcase a particular project or has secured a guest speaker. Each meeting is hosted by a different local government each time, on their premises. A meeting is scheduled for approximately three hours, with an agenda circulated the week prior to the meeting. Crop Swap is overseen by a convener who acts as a central point of contact for the membership. In this role, the convener liaises with the hosting Council local government regarding the arrangements of travel/parking, catering, audio visual equipment requirements, agenda finalisation and communication to the membership.

CityView Council worker group

A chance meeting

The participation of workers from CityView Council came about serendipitously. The chance attendance at a Crop Swap meeting where I was discussing my research generated sufficient curiosity in one new member that she approached me to ask further questions on my chosen research methodology. At a later meeting she described her role as having a focus on organisation learning. This role reported through to the Human Resources Manager and she indicated that she would need to seek permission from her manager to sanction any participation in research. At the conclusion of this meeting, it was agreed that I would prepare a one-page document that presented an outline of how AL sets operate, the benefits to the individual and organisation and examples of where they have been used successfully in organisations. The document was prepared and emailed together with an agreed date to meet again to discuss the opportunity for participating in the research.

I have described this group as heterogenous as the participants are employed in a range of jobs in the organisation that included workers from the main library, community outreach and customer service. All the participants worked in the same directorate and reported to one of two managers who were also present at the ALS. CityView did not have a mandated CI program or framework in place at the time the research was conducted.

Preparing CityView workers for their participation in a set

After receiving approval from CityView Council to proceed, I was invited to facilitate two AL sets with a group consisting of members from two teams and their managers. This group was deemed to be in need of fostering cross-departmental relationships, as determined by a recent internal survey that was facilitated by the Human Resources department. Arrangements for a suitable date, time and location were made. As a prelude to the set commencement my contact details were made available to participants by way of answering any questions, queries or concerns. I did receive a total of three telephone calls from two managers and a potential problem-presenter. During these calls I communicated the general process of the running of a typical set, advising that I had resources available to support the participants and discussing what a work-based problem is, how it may be presented to the set and what to expect when you are a problem-presenter. Copies of these resources are available in Appendix 6.

Ethics and critical reflection

As a previous member of Crop Swap meetings, I felt there was an appetite amongst the members to engage in a conversation around the sustainability of CI practices in NSW local government. Adler and Adler (2002) have argued that having membership in a group increases the likelihood of gaining access to interviewees, and scholars have leveraged this opportunistic approach to accessing research sites. In consequence, I approached the convener and discussed my research goals with her and sought permission to undertake research with Crop Swap. In reply she offered me the opportunity to present my planned approach at the next meeting of Crop Swap and to seek interest from attendees at that time. As requested, I undertook a 30-minute presentation at a Crop Swap meeting. My presentation included an overview of the theoretical approach, methodology and method. I included a short YouTube video see Norman (2016) of an AL set taking place. After debriefing about the video, I offered the meeting members the opportunity to join in a role play of an action learning set. At the conclusion of the role play and question and answer session, I sought their feedback in relation to any concerns or reservations they had about the method. Shortly after this meeting I was able to obtain a letter from the convener stating that Crop Swap membership agreed to participate in the research. This letter was included as part of the documentation submitted to the University of Wollongong Human Research Ethics Committee (HREC).

Upon receiving approval from HREC (Approval number: 2018/083 - see Appendix 3), I attended a Crop Swap meeting in January 2018 to obtain informed consent from those members who wished to participate

in the research. At this time I received five completed consent forms. I documented participant email addresses and a contact telephone number, to facilitate communication with them. The next Crop Swap meeting would be the first time an AL set would be run. It was agreed that the AL set would take place prior to the commencement of the general meeting, however the research participants were insistent that the AL set be concluded within 45 minutes. Initially I found this to be quite concerning and was left to consider how to conduct robust research and maintain the relationship with the research participants simultaneously. I was able to gain some perspective through consideration of the work of action research scholars, see for instance: Arieli and Friedman (2009); Altrichter et al. (2002); Coghlan and Shani (2014) together with critical reflection upon my practice as an ethical researcher. Coghlan and Shani (2014 p. 525) contend:

"Action research's distinguishing characteristic is that it addresses the twin tasks of bringing about change in organizations and in generating robust, actionable knowledge, in an evolving process that is undertaken in a spirit of collaboration and co-inquiry, whereby research is constructed with people, rather than on or for them" (emphasis in original).

Chapter Summary

In this chapter I have outlined the epistemology of social constructivism. Social constructivism situates the learner in relationships with others that come together to construct new knowledge in order to make sense of the world. In the drawing together of workers from NSW local government this research has adopted multiple points of data collection that include face-to-face and telephone interviews that are legitimized in literature as a useful approach to conducting qualitative research. Apart from interviews, the research will adopt an action research approach that is also recognised in the qualitative research field. As a subset of action research sit Revans' ALS. Through my immersion in practice theory literature I have understood the need for the teleo-affective nature of practice. My research has indicated teleo-affectiveness is absent in the enactment of CI and as such I have sought to re-establish it once again in worker practice. It is this notion that supports my decision to redevelop Revans' ALS method through incorporating critical reflection in replacement of Revans' recommended acts of reflection. The difference in the actions of these two terms has been discussed in Chapter 5. In conclusion, this research employs a combination of qualitative data collection methods to gain an in-depth understanding of workers' experiences that will then be used to analyse conceptions of critical reflection and the notion of the continuous flow of improvement activities as discussed in the seminal works of Crosby, Deming, Juran and Imai (see Chapters 2 and 3).

Chapter 5 - Research data analysis and findings - RQ1 & RQ2

Introduction

This chapter presents the research findings, and these have been situated as they relate to RQ1 and RQ2. The third research question RQ3 follows in Chapter 6.

This chapter will present the findings from the interviews and ALS conducted. The findings of the research were obtained through thematical analysis of qualitative data. Thematic analysis according to Lochmiller (2021), is a method of qualitative research associated with the identification of patterns that are then reported as researcher generated themes. Thematic analysis is foregrounded in Chapter 4 in the discussion of the use of qualitative methods of research. The analysis of data has surfaced four themes:

- Frameworks create architectures for the enactment of CI
- A lack of telos
- A missing critical disposition
- Absence of a critical problem-solving approach

The four themes emergent in this research are consistent with key aspects of literature considered in Chapter 3 through the examination of the work of the early quality theorists, Deming, Crosby, Juran, and Imai. Within the seminal contributions to the body of knowledge of CI by these authors, the importance attributed to each of the four themes is clearly stated. Within the work of Deming these are made overt in his 14-Points; Crosby's 14-Steps; Juran's enduring pursuit of the cost of poor quality, and Imai's foci on problem definition and root cause analysis.

This chapter commences with an overview of the pre-ALS actions undertaken by the researcher to facilitate the research. This is followed by the restatement of RQ1 where the presentation of data and analysis considers the enactment of service reviews. The discussion moves to the hybrid approach that is currently representative of CI inside local government. Next, RQ2 is restated, and the challenges local government faces as it shifts away from embedded CI practices, of which organisation silos are an identified as a result of the limiting of CI practices, is identified.

In engaging with practitioners from NSW local government this research has sought to explore the conditions under which CI practices are currently enacted. The research undertook a total of 4 ALS, 13 interviews and one practitioner focus group. Apart from conducting the research, additional time was required to discuss the application of ALS to their work and organisation in order to garner interest. From that point I proceeded to negotiating with Crop Swap and CityView Council for dates and a location. CityView required an introduction to ALS that was convened prior to the running of the first ALS with

that group. A significant number of hours were spent managing relationships to facilitate the research. In total 10 NSW local governments are represented in the data. The practitioners who participated in the research ranged in experience from newly employed in the role to having many years of experience. This enables the narratives discussed in this chapter to chart a course of change that has persisted in NSW local government as a result of neoliberalism as it seeks way to deliver to the community it services in more efficient and effective ways.

Despite this message of CI circulating within NSW local government, the work of the CI practitioner is constrained and at times strictly limited by organisational conditions. As outlined in Chapter 3, conditions of practice within NSW local government are mediated by the NSW state government. Within NSW local there exists an agenda of pursuing business as usual that has mediated:

- an emergence of cobbled together hybrid approaches
- approaches working in parallel
- a lack of clear problem definition within NSW local government.

This chapter explores the conditions created by government policy, government sector trends and the funding models which have worked to shape the doings, sayings and relatings of CI practitioners in ways that appear to have eroded a coherent methodology. The data from the ALS indicates there is an absence of problem definition statements together with problem-solving methods being enacted in NSW local government.

To contextualise the data from the research, the following section recognises the stated frameworks of CI as described by CI practitioners that exist within NSW local government and the practices of CI that are enacted by these CI practitioners.

RQ1: What are the practice architectures in local government that impact CI?

Bringing together data from the interviews and document analysis it was identified that various CI frameworks in NSW local government are in operation that CI practitioners recognise as representative of 'continuous improvement' in their organisation. These frameworks are reported in Table 1 Practitioner identification of frameworks in use. Service reviews are implemented widely across NSW local government. It is possible to identify service reviews working in the same way as an architecture of practice. The practices that it makes possible are prefigured in the sayings, doings and relatings of neoliberalism, notable by a focus of driving down costs and enabling service rationalization.

As presented in Table 1, service reviews are the most widely enacted CI framework currently in local government. However, this has not always been the case, with other CI frameworks said to be operating within NSW local government. In Chapter 3 the frameworks and methods of CI enacted in NSW local government and across the public sector are described. These include: ABEF, LT, LSS as well as Service

Reviews. All these frameworks of CI operating in NSW local government, including service reviews, are implemented in a top-down manner that includes the use of management consultants to roll these initiatives out across the organisation.

Identification	NSW local government employer (pseudonym)	Years as a CI practitioner with current employer	Frameworks of continuous improvement in use
A	City of North Suburbs	< 1 year	Employee suggestion scheme
B	Portside City Council	>12 years	Service reviews, process mapping
C	Multicultural City Council	>10years	Service reviews
D	Shelly Council	>2 years	Process mapping
E	Bay Council	<2 years	Service reviews, customer stream mapping
F	Bay Council	>3 years	Service reviews, process mapping
G	Coal Seam Council	>2 years	Process mapping
H	CityView Council	<1 year	No stated methodology in use
I	MountainView Council	<1 year	LT, LSS, service reviews
J	Port Dolphin Council	>3 years	Service reviews
K	Metro City Council	>3	Service reviews
L	Green Hills Council	<3	ABEF

Table 2 Practitioner identification

In looking more closely at the frameworks recorded in Table 2 two distinct 'streams' of CI seem to be in operation: one, where the work of service reviews is undertaken (see NSW local governments: C; J and K) and the second where service reviews and other tools that are part of CI are cobbled together and enacted simultaneously within an organisation (see NSW local government B; E and F). When the latter happens Pepper et al. (2022c) recognise it as a hybrid approach. It is suggested by Pepper et al. (2022a) that a hybrid approach takes advantage of pre-existing competencies, skills and preferences. However, it

remains possible that the various approaches that are brought together to form the hybrid do not always work in harmony. Instead, these may operate separately, with service reviews being undertaken by one group and the enactment of various CI tools undertaken by a further group, of which CI practitioners may belong. Isolating these practices is problematic as it enables parallel CI practice architectures to arise inside those NSW local governments that pursue service reviews and CI separately. Such an approach makes it is possible to observe unique sets of doings, sayings and relatings in operation inside each of these parallel architectures. These dual architectures of practice work to embed a 'silo mentality' within an organisation. Organisation silos is a metaphor to describe how information flows in a vertical manner from the top-down inside the organisation (Cilliers & Greyvenstein 2012). These authors further contend that organisation silos give rise to parts of the organisation operating distinctly from one another. These organisation silos are recognised as limiting opportunities for rigorous problem-solving methods to operate, as silos exaggerate short-term and local approaches (Mella & Gazzola 2019). The enactment of a short-term approach can best be described as work-arounds Mann (2014). The goal of the work-around is to 'deal' with the issue and then return the focus of the worker to, for example, meeting the deadline/schedule. Mann (2014, p. 241) considers work-arounds to be "anti improvement". A localized foci drives such approaches. To adopt an individualist and local approach may result in adopting defensive routines, judgement biases, and limit learning that can result in opportunities for improvement being dismissed or ignored (Sterman 2001). Such representation of organisation silos by Sterman (2001) enables parallels to be drawn with the mechanistic paradigm notable by its ability to control workers through adherence to rules that limit opportunities for innovation and improvement (Brown 2014). A root cause orientation to problem-solving exposes problems, defines these, eliminates causes and improves outcomes (Mann 2014). For improvement to occur it is necessary to cut across the vertical silos of the functional organisational structure.

Service review framework

As the name suggests, service reviews are designed to identify where and how resources can be applied to maximise NSW local government efficiency. In reviewing the 'how to' documents of service reviews there is a focus of cost saving that emphasises the breadth of neoliberal policies driven by both state and federal governments. One of the key features of service review implementation as the data suggests is that these are often implemented by consultants. However, such an implementation strategy is not limited to NSW local government. Examination of the use of management consultants more widely recognises these as "knowledge entrepreneurs" (Heusinkveld & Visscher 2012, p. 285) in government departments. This has an impact on how improvement (if any) is achieved. Management consultants are in the business of retailing a range of abstracted management concepts and as such are selling what they know organisations will buy. In contrast to how management consultant practices are enacted, it is argued that without a deep understanding and connection to the community and the telos of practice in the delivery of a quality framework that meets the client brief, there may be a loss in the potential of what could be achieved. In repackaging service reviews, for example, as a methodology to achieve financial sustainability, management consultants have tapped into a ready source of income, particularly when it coincides with the state government agenda of NSW local government reform dominating the discourse

within NSW local government. In recognising service reviews as an instrument of neoliberalism it is possible to understand their appeal to NSW local government in securing long term financial sustainability by addressing gaps in funding where the review process is undertaken to rationalise services and reduce expenditure (Hunting et al. 2014; Ryan et al. 2014; Walker & Gray 2012).

A service review framework presented by Ryan et al. (2014) is not, I contend, a CI framework; rather it is an approach that foregrounds the customer and their requirements in the day-to-day operations of NSW local government. Prior to changes being implemented, Ryan et al. (2014) recommend the following questions be considered, for example: "What will be the impact of the changes on the opportunity for community involvement in decisions and activities?"; "How much cumulative risk is involved for the local government and community when all the changes are considered together?" Furthermore, Hunting et al. (2014, p. 38) aver that service reviews "should be incorporated into local government's continuous review cycle rather than be a stand-alone project." In reinterpreting this statement from Hunting et al. (2014) it serves to warn against the development of organisational silos by foregrounding service reviews over CI. Such positioning of service reviews by Hunting et al. (2014) seeks for these to form part of the strategic planning framework and also the ongoing annual review of operations, delivery programs, and financial and asset management plans. This notion then repositions service reviews as a tool of CI.

To qualify such a repositioning I turn to the work of the early quality theorists: Crosby, Deming, Juran and Imai. In reviewing their individual and combined contributions it is evident that CI is significantly more than a collection of tools. Consider the following commonalities shared across their works that foregrounds the elements that together constitute CI: top management support and commitment is essential; education and training for all staff is a fundamental and ongoing requirement; measurement is critical; improvements are not viewed as the final end state; problems with quality can be attributed to top management policy or action; post production inspections should be minimized; effective communication and team work across all areas are essential; managers must provide workers with the resources to do their best job; there are no shortcuts to quality; suppliers must be involved in improvement efforts; and the pursuit of quality is a continuous effort (Bendell et al. 1995; Deming 1986; Ghobadian & Speller 1994; Juran & Godfrey 1998; Kiran 2017b; Nielsen 2004).

The requirements for sustainable, continuous CI as outlined above are not in evidence in the description of service reviews. With these requirements absent or sidelined it problematises the notion that service reviews are a quality framework and, as stated in earlier in this chapter, it is the contention of the researcher that service reviews may be at best considered a tool to support the work of CI in NSW local government. Considering the positioning of service reviews as described by Ryan et al. (2014) when perceived through the lens of TPA, it is possible to see service reviews operating as an architecture of practice that supports the social-relational arrangements of a top-down approach undertaken in pockets of the organisation. Earlier in this chapter I describe organisation silos as a recognised representation of the mechanistic paradigm. In reviewing the service review literature of Hunting et al. (2014) it is possible to identify the similarities between the sayings, doings and relatings of service reviews and organisation

silos. These ideas are taken up in the following section.

Service reviews as an architecture of practice prefiguring local practices of CI

Reconceptualising service reviews as an architecture of practice makes possible the foregrounding of the material-economic arrangements that limit training and education of staff; social-political arrangements that seek to exclude workers from the process and leave it in the hands of a few, such as Corporate Planners; and material-economic arrangements with a focus on finance and budgets that sees the cumulative results of these architectures of practice reinforce organisational silos. Recognising service reviews as an architecture of practice foregrounds sayings, doings and relatings that are notably lacking in solidarity and care; a discourse of neoliberalism that sets a tone for the requirement for, and justification of, the provision of service deliverables and standards of service. It is contended that when NSW local government mistakenly identify service reviews as a modality of CI, they are enabling sayings, doings and relatings that are in fact moving the organisation further away from the true representation of CI described by the early quality theorists, and closer to further embedding a singular material-economic view throughout the organisation.

In the previous section, service reviews are recognised as an architecture of practice that makes particular kinds of practice possible. How are service reviews then working to prefigure CI practitioner practise? In interview the CI practitioners shared the sayings, doings and relating of their currently enacted practice:

Practitioner G shared the work that is currently undertaken under the guidance of the service reviews methodology: *"We conducted a series of workshops [...] so that teams really understood their customers and suppliers, their inputs, outputs, and those key relationships that they needed to nurture to have a successful business."*

The quote from Practitioner G is indicative of how the sayings, doings and relatings of economic rationalism are prefiguring her practice. Though there is no indication that the workshops have seen workers go on to put the learning into action.

Practitioner D shares her experience with a specific CI methodology *"I have my green belt in Lean Six Sigma"* and how she had applied that experience to bring the customer voice back into the business "[A team undertook a] VR (value review) program there, based on customer experience."

Practitioner D was able to achieve this by gaining top management buy-in *"I managed to get quite a bit of sponsorship on board with the program."* This level of sponsorship resulted in "more *people, and [she was] given quite a big budget, [...] to spend on consultants."*.

Practitioner D offers evidence of where the spending of budget resources on the engagement of external consultants and additional staff to support the deployment of LSS across the organisation is an acceptable business practice. This is despite Practitioner D being an experienced and qualified (green belt) practitioner. In using management consultants as the agents of change, NSW local government is enacting neoliberal policy Lapsley et al. (2013). This is a well-established management practice within the public sector that enables managers to continue to deliver business as usual with little disruption (Lapsley et al. 2013).

The above quotes from CI practitioners situate the positioning of management consultants inside NSW local government, despite internal CI practitioners having skills and experience to complete the work. Further, it illustrates the way neoliberalism and top management practices are prefiguring the work of CI practitioners and workers. In using management consultants as change agents, NSW local government is not only outsourcing responsibility for the program deliverables, it also seeks to prefigure the completion of day-to-day work that excludes thoughts and actions of improvements, thus embedding a silo mentality within the organisation. This results in the work of the CI practitioner being further removed from the daily operations of NSW local government.

The following section considers the conditions the CI practitioners are enacting in their individual practice, where it is possible to identify multiple frameworks, tools and service reviews all in use.

Despite the prevalence of service reviews, the CI practitioners were also able to discuss the approaches to CI that are operational in their organisation:

Practitioner C shared: *"[We] use the DMAIC System for our structured methodology and "LSS deployment."*

Practitioner K commented: *"I actually spent most of my time rolling out Lean training."*

Practitioner L shared: *"We are using ABEF."*

It is possible to note from these examples provided by the CI practitioners similarities and differences in the approaches to CI that exist in NSW local government. The deployment of elements of LSS and LT coupled with service reviews has resulted in a 'hybrid approach'. This may be in part due to the memetic nature of NSW local government where this approach has been enacted at one site and brought to another without contextualisation. Does such an approach deliver a positive outcome for NSW local government? Hybridisation of methods is not new to the CI literature, for example Pepper and Spedding (2010) argued that hybridization of LT and SS promulgated the benefits of both approaches. In the context of service reviews and CI, however, it is possible to see NSW local government are placing a greater emphasis on the implementation and application of service reviews through the spending of scarce resources, such as time and money, on them in comparison to CI, as NSW local government enacts neoliberal policy

Therefore applying a lens of TPA has enabled analysis of the conditions that have resulted from the enactment of neoliberal policies in NSW local government to take place.

A hybrid approach and other CI practices

In the previous section the use of service reviews within NSW local government is recognised as being implemented widely amongst the NSW local governments represented by the research participants. However, the findings of the research identified that service reviews are operating in parallel to 'other' CI practices.

Practitioner C noted that: *"[my role] is focussed on leading service reviews"* and, almost as an after-thought, she added: *"I also have responsibility for business process management now as well."*

In her response, Practitioner C provides evidence of two parallel architectures operating: one of service reviews with their own sayings, doings and relatings as have been described, and the architectures that enable process management that has a differing set of sayings, doings and relatings. It is possible to consider the conflicting nature of these two parallel architectures that would further drive organisational silos. It is evident from Practitioner C her work priority centers on the conducting of the service reviews program of work. Business process management is presented as a secondary consideration in the use of her time and available resources.

In appraising each of these two approaches service reviews contain a mostly external view of the organisation, that is, a third-party; the Office of Local Government evaluating the data reported to it, whereas localized CI efforts are understood by insiders, that is, workers within the organisation. The differences mean that both approaches have differing conditions of enactment.

When these differing conditions are viewed through the lens of CI, it is contended that the separation of the two approaches is not reflective of hybridization but rather tampering. Tampering was the term used by Deming (1986) to describe actions that are undertaken without an understanding of the implications of such actions as these are played out over time. Moreover, Deming (1986) argues that managers tamper because they are trained to do so. Georgantzas and Orsini (2003) position tampering as interfering so as to weaken or to make something worse. The authors go on to imply that this is underhanded or improper. TPA offers a further perspective of tampering, one that is notable for the absence of praxis and often brought about by the conditions of practice that enable certain practices and curtail others.

RQ2:How do these enable and constrain CI being enacted?

What does this mean for the practice of CI inside NSW local government? Such separation of operations (service reviews) and strategy (CI) does not serve the overall interests of NSW local government. The current approach of foregrounding material economic sayings, doings and relatings has been shown to remove CI from the day-to-day work of local government and set up improvement as enacting a limited

number of tools in a decontextualised manner. This creates certain cultural-discursive and material-economic conditions that sees the privileging of outsiders' knowledge, for example, management consultants, over that of workers and management. This approach results in singular foci on material-economic architectures and neglects the social-political and cultural-discursive architectures. Practitioner B, an experienced CI practitioner who has worked for NSW local government for 12 years, shared the need for all three architectures to work in mutuality with one another:

"[there is a requirement for] "helping people to understand how much they rely on each other to deliver services" and conceptualise "changes in their processes can have impact further down the line and [...] impact on the delivery of the service to the customer".

The quote from Practitioner B provides evidence to support the way in which material-economic architectures of practice prefigure the language in use. Additionally, a shift has surfaced in the cultural-discursive arrangements with an emphasis placed on the 'delivery of services' that serves to drive business as usual.

As suggested by the early quality theorists, a whole of organisation approach is necessary for 'continuous improvement'. The rise in popularity of service reviews becomes problematic with its singular focus on financial rationalism. Such a positioning supports a singular focus of workers towards the meeting of targets (such as the number of calls answered or books loaned from a library) and neglects opportunities to look inwardly and reflect on problem definition, action planning, and to engage in critical reflection and continuous, flowing improvement.

With service reviews considered to be the gold standard for balancing the needs of the community with organisation fiscal management, there remains a disconnect between the work of the CI practitioners and the ongoing, continuous flow of improvement across NSW local government as outlined above. In the implementation of service reviews, the role of the CI practitioner is not made apparent. Walker and Gray (2012) suggest it is more akin to an administration role that co-ordinates the activities of service reviews. While this was evident in interviews with the CI practitioners, their role is also to facilitate CI tools such as process mapping. The fragmentation of the CI practitioner role constrains the work they are able to do that has resulted in a quite narrow range of responsibilities. With few exceptions, the CI practitioners who participated in this research do not have responsibility or full oversight of the CI program as it is being rolled out across the organisation. Such a repositioning of the CI practitioner indicates a lack of wholism in the approach adopted by top management. Wholism is considered to be an all of organisation approach identified as necessary by the early quality theorists. In Chapter 4, Deming's System of profound knowledge clearly states the role of top management is to enable an organisation-wide approach to CI through the removal of barriers. In the absence of this, CI becomes fragmented and unsustainable.

An overarching architecture would enable immediate action (tampering) and constrain the practice of data collection and analysis over a longer period of time to identify the natural variation of the process and the

instigation of problem definition practices. Therefore, what these interviews with CI practitioners have revealed is that the enactment of service review practices is enabled by neoliberalism, and CI practices are consequently being constrained. Consequently, it is difficult to establish if the financial benefits promised by the use of service reviews have been realized once the costs of introducing, supporting and maintaining such practices are taken into account.

Other than service reviews, CI practitioners identified an employee suggestion scheme and the deployment of the ABEF. The ABEF framework was described in Chapter 4, together with how it has been widely deployed by NSW local government. The employee suggestions scheme was the only bottom-up approach recorded in the conversations with CI practitioners. In Chapter 4 I consider how the top-down approach to CI is representative of the mechanistic paradigm and the bottom-up approach exists within the organic paradigm. The mechanistic paradigm represents more closely the teaching and practices of Fredrick Taylor described as Taylorism (Urick et al. 2017). The organic paradigm is inclusive of worker input into solving workplace problems where these same workers are empowered to implement solutions (Stalker & Burns 1994). Situating CI within either of these organisational paradigms works to act upon the practices not just of the worker but also that of the CI practitioners in their practices to support workers. The employee suggestions scheme operating in the City of Northern Suburbs Council *appears* to be a bottom-up approach that is reliant upon the engagement of workers through their ideas being actioned by top management. To be successful an employee suggestion scheme requires an integrated approach to organisational planning that establishes the connection between an organisational strategic plan and an operational plan. This provides a clear line of sight for the identification of worker suggested improvement projects and assessment of these by top management. However, such an approach becomes problematic when ideas are left waiting for consideration by top management or when ideas are declined. This demonstrates how practices are enmeshed at the site (Mahon et al. (2016b) at the site where, we may conclude, the practice of approving CI projects works to shape the worker practices (do workers participate in the scheme or not?). Without careful management of the suggestions scheme, the telos of the practice of CI in the City of North Suburbs Council may be lost. The definition of telos is the aim of the project of work. This was presented in Chapter 3. The top-down approach adopted by the majority of NSW local governments driven by the use of service reviews may be problematic. The architectures of practice that enable the focus on finances and service contraction also works to disempower workers to solve problems as they arise and maintain conducting business as usual. In the following section I discuss the role of problem statements/problem definition and the critical role these play in 'continuous improvement'.

Challenges identified through a shift away from CI practices

The development of problem statements/problem definitions are essential to achieving CI (Fadnavis et al. 2020). In literature there is a recognition of the relationship between organisational cultural traits and the capacity of workers to engage in structured problem-solving (see for example; Chemweno et al (2016); Fadnavis et al. (2020); Reid & Smyth-Renshaw (2012). The definitions of organisational culture vary depending on the theoretical lens being applied by the researcher. With this in mind, this research will

use architectures of practice to describe the phenomena that act to enable and constrain the practices of the organisation that are notable by the unique set of sayings, doings and relatings of the organisation. Therefore, it is considered that the architectures of practices shape the way problem-solving is discussed, the enactment of specific methods and who can participate in the practice.

In Chapter 3, I presented the theoretical positions of Crosby, Deming, Juran and Imai. Within each of their individual approaches is the foregrounding of problem statements and the necessary role of such in CI. Crosby, Deming and Juran all looked to statistical methods to raise standards and while acknowledging the reliability of the use of this approach in solving sophisticated quality problems, Imai recognises the situatedness of workplace problem-solving and recognises the position of simple tools in such situations. Within Imai's work, we see evidence of the use of 5 Whys together with pareto and Ishikawa diagrams Imai (1992a, p. 74). The work of these early theorists recognises the positioning of problem-solving in all attempts to improve current performance. The place of problem-solving/problem definition/problem statement is the first step in the continuous improvement journey. The early theorists discussed the enactment of problem-solving practices that must be undertaken by all workers regardless of their job title; however, the specific practice of problem-solving was never predetermined but rather the early theorists presented the most appropriate one, being that which met the needs of workers to produce high quality goods. It is only when we look to the CI method of SS, that is described in Chapter 4 of this thesis, that has been defined by Schroeder et al. (2008, p. 540) as [an organized] "structure to reduce variation in organizational processes by using improvement specialists, a structured method, and performance metrics with the aim of achieving strategic objectives", and within SS we see the shift to a predetermined approach of statistical analysis. The drive for the use of statistical methods has often resulted in the separation of work methods from the practice of problem-solving (Anonymous 2002; Antony et al. 2007). This separation of roles is evident in the distribution of work of service reviews and enacting tools of CI. Moreover, this disconnection between roles and tasks is reminiscent of quality inspection that the early theorists understood as a non-value adding task, as it removed the emphasis from workers having the authority to building quality into their work by resolving problems as they arose. A return to the development of problem statements/definitions by workers at a site is an opportunity to return to building quality back into work processes.

The criticality of problem-solving/problem statement/problem definition cannot be understated. How then is this undertaken in NSW local government? An examination of the service review cycle by the University of Technology, Sydney, (2021) does not include any guide to problem-solving methods or identify whose role it is to undertake this work. In discussions CI practitioners were asked to identify the catalysts for the improvement cycle to commence in their organisation.

Practitioner: E
" […]There seems to be a lot of inertia in local government because there's heaps of business as usual going on" For example, consider once a process map is completed there is a disconnection between it and *"the achievement of some quick wins on the board."*

In this comment, Practitioner E provides a clear example of the dislocation that exists between the use of CI tools and improvement in an environment that has a focus on delivering service reviews.

Practitioner: F

"My experience is yes; people do come to seek some understanding about a process or often about where they feel a process is failing and where the improvement should be."

Practitioner: E

"[…] I've found that people typically seek me out if there's a considerable amount of pain being felt and that pain is [going to reflect badly on the worker] *then [they] will seek you out and say something's got to change. But people can endure a fair amount of pain before they actually decide* [to act]. *I think we need to do something to fix this or else they're happy just [to] keep plugging along and changing things out".*

These two quotes from practitioners F and E illuminate similar perspectives. Both practitioners acknowledge that improving a process can be driven by workers and what they need is the support of the CI practitioner to guide them in defining the problem and developing a problem statement that is truly reflective of the 'pain points' they or their customer are experiencing. When the CI practitioner is constrained in enacting the full range of skills their role requires it is clear that without assistance these problems can be ignored and workers continue working on business as usual, thus maintaining the short-term perspective within the organisation.

Practitioner E:

"[…] the way that we [the CI practitioner] *typically go about executing our objectives and getting things done can often mean that we will jump into conversations or negotiations with preconceived notions or ideas about how an outcome is to be achieved. And that that can limit the potential for other ideas to eventuate and come to light.".*

Practitioner H:

"[…] deep diving to what the proper issues are takes time, and you've gotta give those problems [airtime to be] able to really get to the crux of things […]"

Both Practitioner E and H have acknowledged how their own practices are influenced by the material-economic architectures of practice existing at a site and how these can work to, for example, constrain affording problems the time to be clearly articulated and allow for the development of a problem statement.

Practitioner C:

"The mandate in local government, I don't truly feel that it's actually to improve anything."

The quote from Practitioner C provides insight into the challenges experienced by the practitioner at a site where the existing material-economic, cultural-discursive and social-political architectures of practice enable business as usual and constrain efforts for innovation and improvement. This statement goes further by describing a lack of telos in the enactment of CI in NSW local government where there is no evidence of a mandate from top management that is supported by sayings, doings and relatings that enable a whole of organisation approach to CI.

These statements from CI practitioners demonstrate that the development of a problem statement is not a formally enacted CI practice in NSW local government. The CI practitioners have provided evidence that indicates that when problems are surfaced there is no appetite to fully explore these in such a way that the root cause is identified, nor is this done in conjunction with others. Such practices are unlikely to produce sustainable results. In the following quotes from CI practitioners the significance of developing a problem statement is reinforced. Without a problem statement to act as the catalyst for the improvement cycle, the CI practitioners agreed that the commencement of a CI project was often a request for process mapping. These comments from CI practitioners demonstrate ways the existing architectures of practice shape how CI practices unfold:

Practitioner C:

"I think it's ticking a box, it's compliance, it's having the documentation just in case, it's because it's the flavour of the month."

In this quote it is possible to see that Practitioner C is reflecting on the positioning of CI in her local government that is representative of the material-economic practice architecture that is reflected in the mimetic nature of CI in NSW local government.

Practioner L:

"[managers are saying to us] *we haven't got time [to do business improvement work]. We're getting push back from managers*.". The nature of this quote seeks to exemplify the social-political and material-economic architectures working to prefigure work on the achievement of short-term goals. State and federal policy implications for NSW local government have resulted in controlling budget expenditure that has driven NSW local governments short-term focus (Giménez & Prior 2007).

This focus on short-term goals have given rise to local practices that are absent of problem definition statements and problem-solving methods that see workers working around problems.

"My GM has KPIs on [developing process maps]*, but there's no KPIs around actually improving anything or the customer's outcome in the end.* When asked what was behind this, she replied "*Part of that is a risk aversion so that if something goes wrong, we can pull our process map and smack the person that did something wrong because hey, we had a process map."*

This comment from Practitioner E is her reflection on how CI is currently being enacted that demonstrates that, while NSW local government publicly shares their commitment to CI, the reality is not the same in the actual workplace. Alarmingly, as described above the use of process maps is being used to punish workers when things go wrong. This is further evidence of the way neoliberalism as an adopted policy drives material-economic and social-political architectures that prefigure the practices of top management and workers to deliver the required process maps.

Practitioner B:

"The manager likes the idea of mapping processes. They come along to training, they map one or two processes and business as usual just gets in the way, and they don't allow themselves to work on the business."

Three practitioners L, E and B, all similarly acknowledge the way architectures of practice work to enable and constrain CI practices in their respective organisations. It is possible to see how a narrow view of CI by top management works to narrow the CI practices being enacted.

The predominant material-economic, social-political and cultural-discursive orders and arrangements pre-existing in NSW local government and 'zoomed in' Nicolini (2009) on by CI practitioners provides evidence that the enactment and the practice of problem-solving/problem statement/problem definition is clearly constrained. This has arisen from local conditions that foreground business as usual and an industry-wide predisposition on short-term outcomes that have displaced problem-solving practices. The need to foreground problem definition in solving problems cannot be understated. The foremost challenge to the organisation is the solving of the right problem and avoiding adoption of a formulation that is too narrow or inappropriate (Baer et al. 2013; Mitroff & Featheringham 1974). Without a clear problem definition, valuable resources are wasted on actions that do not work to overcome the problem, as recognised by practitioners L, E and B in the quotes above. In NSW local government, neglecting problem definition has resulted in top management prioritising service reviews to achieve quick fixes over the development of a deep understanding of workplace problems, the consequences of which are the organisation silos or, from the perspective of TPA, are parallel architectures of practice. The architectures of practice enabling the consolidation of organisation silos further enables worker practices of business as usual and constrain openness to opportunities to work across these silos.

Organisation silos embedded as a consequence of the limiting of CI practices

If problem statements are not the catalyst for CI, what mechanisms exist internally to enact an improvement cycle? In looking to identify catalysts for improvement, the practitioners were asked about what data is collected within the organisation and how it is being put to use. The practitioners described the formal method of data collection as designed specifically to meet state government legislative requirements. This work is recognised as Integrated Planning and Reporting (IP&R), where each NSW local government reports on a number of prescribed performance indicators and process outcomes such as calls to customer service, complaints received by customer service, number of library book loans,

development assessment completed and the timeframes to approve these. The CI practitioners advised such work is completed by a group of workers recognised as 'corporate planners' whose role is to gather the data from various databases and upload it into a preconfigured document that is presented at Council meetings, then submitted to the Office of Local Government NSW (2021). Most of the CI practitioners identified that they were isolated from the data collection process and only two practitioners had a connection with the work of the IP&R group that involved the CI practitioners being charged with following up on anomalies in the data. This work does not reflect the practice traditions of CI. The architectures that work to separate CI practitioners and their practices from participating in this work of IP&R is further evidence of the parallel architectures in play, with the outcome embedding the practices associated with organisation silos ever more deeply in the organisation. In interview the CI practitioners shared their experiences of how their role did or did not connect to the outcomes of the IP&R:

Practitioner E:
"[…] there is minimal focus on the measurement performance within our [business improvement] team.

Practitioner C:
"For staff, they didn't really [have a reporting requirement]"

Without a requirement for reporting on process performance a valuable source of data is missed that is often time used as a catalyst for improvement.

These statements reflect the prevailing disposition of the pursuit of business as usual in NSW local government.

Practitioner C:
"[my previous local government employer] *did have quarterly reporting on the integrated planning and reporting framework".*

Practitioner C reflects that data is used solely in the legislated reporting framework and is not reflective of an organisational disposition to use data to support improvement activities.

These three CI practitioner comments reflect the prevailing organisational disposition that data which may be used for CI is separated from the day-to-day work of CI practitioners and workers alike and left to Corporate Planners to compile and report upon. This results in multiple opportunities for improvement being lost due to the myopic approach of the specialized reporting group that is enabled by the pre-existing architectures of practice.

Practitioner J:
So, there's been conversations about how much time we spend on reporting, and you know, what's the value?

Practitioner A:

"*They [IP&R] give us all the data and everything, but it's not meaningful data. We're not tracking [or sense making of the data.] We're really just collecting figures that don't mean anything and putting them in the reporting process.*"

The quotes from CI practitioners J and A are individual critical reflections on those organisational practices that are working to constrain what these practitioners understand to be the right and true way for them to be undertaking their role, that is the modelling of a critical disposition. Kemmis and Grootenboer (2008) recognise this as personal praxis. The concept of praxis is discussed in Chapter 3. Praxis is the 'doing' that involves practical reasoning about what is right and proper to do in a given situation (Kemmis & Grootenboer 2008). In analysing these critical reflections it emerges that the site of the interview has suspended the architectures of practice of their workplaces and enabled both practitioners to critically reflect on the ways their roles are being enabled and constrained by the existing workplace architectures of practice.

In this section it has been determined that data is not the catalyst for an improvement cycle to commence. Generally, the data that is collected is used in reporting back to the Office of Local Government and this process operates outside of the influence of CI practitioners interviewed. There appears to be a deliberate disconnection between IP&R and the work of CI practitioners insofar as each group works independently of the other inside organisation silos. To understand if this is how this relationship plays out more generally in NSW local government, I undertook a desk-top review of six NSW local government annual reports. Six annual reports representative of NSW local government were randomly selected (see Appendix 5):

- Mountain Range City Council
- Airport Council
- Olympia City Council
- CityView Council
- Shelly Council

Of these six annual reports, only one makes mention of a CI program of work. Mountain Range City Council was the one NSW local government that recognised business improvement and the work carried out by CI practitioners as contributing to organisational priorities. In publicly recognising the contribution of CI practitioners, this local government has adopted a unique stance. The lack of inclusion of CI and the contribution made by CI practitioners reinforces the organisational silos existing in NSW local government. This signifies the limited understanding of the potentiality of CI practices and how it can be enacted to transform organisational performance. This has consequences for the practices enacted by the CI practitioner, too.

Practitioner B:
"*I'd have to say right at this point, there is not a formal continuous improvement strategy.* The

downward pressure of neoliberalism enacted through the Fit for the Future initiative on NSW local government has resulted in "*a very drawn-out last restructure. At the moment, individual service units are being bedded down and that has been a two-year process*". Improvement activities being undertaken "*at the moment are driven more so through that service unit planning process, which is done outside of any business improvement resources.*"

This quote from Practitioner B may signify that CI is being moved aside, as the newly restructured organisation is being driven by neoliberal policy that is reflected in the social-political, material-economic and cultural-discursive arrangement emerging as a result of Fit for the Future. How then do the CI practitioners respond to these significant changes that have the potential to constrain the practice traditions of CI?

In thinking about themselves in relation to their practice, there is the possibility that the practitioner may internalise the concepts of CI and the boundaries of their role as it is being defined by the local government that is employing them (Adlong 2008). In the interviews conducted with CI practitioners it is possible to identify a critical disposition is missing in how they are enacting current practices.

From top management down throughout the various levels of the organisation there is a reticence to acknowledge a need for criticality identified through the enunciation of a problem definition/statement that literature recognises as the commencement of each CI project. Without a problem statement I have looked for other catalysts for improvement, specifically from the data that is collected for legislated reporting. In discussions with the CI practitioners, it was determined that a group of workers responsible for the compilation of this data are Corporate Planners. The Corporate Planners do not circulate this data to the CI Practitioners to instigate an improvement cycle. With a few exceptions the CI practitioners are excluded from the collection, interpretation and reporting of corporate data. The positioning of CI in NSW local government has removed the practices that form the practice traditions of CI. This is seen in the work that is undertaken by the CI practitioners, often in a decontextualised way, that many of those who participated in interviews are administering service reviews or process mapping internal processes.

A loss of telos in CI practice

In the previous section I outlined that existing architectures of practices have enabled a limited number of recognisable CI practices while simultaneously constraining the adoption of other practices, such as the development of problem statements. The CI practitioners were asked what practices they are regularly enacting.

Practitioner J:
"*We moved on to mapping processes. We were very successful in terms of the documentation*"

Practitioner C:

"I would say we talk about process, we talk about good customer service, we talk about being able to offer good outcomes and high standards". "[...] We also look at customer service feedback and we look at the way internal customers are managed and perceived as well to get a quality view."

The quotes from Practitioner C are notable by the absence of actions. Furthermore, Practitioner C has neglected to identify what role she plays in CI. It may be interpreted that CI is talked about (sayings) but fails to be enacted through doings and relatings.

Practitioner C:
Has the responsibility for both service review delivery and process management "[…] *my accountabilities are to lead the better practice reviews program, I also have responsibility for business process management."* "[…] *we've adapted it* [service review methodology], *and we also process-map and then use costing for our own analysis. So we use a lot of financial analysis."*

These quotes from Practitioner C encapsulate the current state of play of CI in NSW local government. Moreover, Practitioner C 'zooms in' Nicolini (2009) on the use of financial analysis and in so doing is repositioning it as a tool of CI. The focus on financial analysis is considered to be resultant from neoliberal policies with its own sayings, doings and relatings influencing (or indeed replacing) the sayings, doings and relatings of CI.

Practitioner B:
"[Previously the CI practitioner role has] certainly been facilitating service reviews, delivering training, change management processes and corporate communications."

Practitioner B then moves to describe the current CI practitioner role where two CI practitioner roles "[…] *have effectively been made redundant. And the focus for the unit that those resources are previously set in and now moving towards a corporate analytics focus, which appears to be perhaps more outwardly focused than inwardly."*

Again, as in the previous comments, it is possible to identify here the influence of neoliberal policies on the sayings, doings and relatings of CI; so much so that the role has been shifted to undertake financial analysis.

Practitioner A:
"This last six months I've been more focused on [process mapping (software brand name)] and mapping processes, and that can get a bit repetitive after a while and you don't feel like you're making any... I kind of want to be kicking goals and feeling like I'm really making a difference."

Through interview it is possible to map the shift of CI practices in NSW local government in response to neoliberal policies. The shift in enacting a limited number of tools including financial analysis has

resulted in the disempowering of CI practitioners and enables those that are 'doing' to do so in response to the architectures that exist at the site that sees people doing the best they can under the prevailing circumstances. This has resulted in a practice of 'following the rules' and, while this is not necessarily inappropriate, it becomes problematic when it excludes the critical examination of these constraints. As detailed in the examples provided by the CI practitioners, their role has now become that of 'CI Operative' where elements of criticality that underpin the practice traditions of CI are excluded. Kemmis and Smith (2008b) define the term 'operative' to describe the practitioner and their practice that becomes hemmed in by the rules that exist at a site that impact on the enabling of agentic criticality. The current site architectures that work to exclude both workers and the CI practitioners from enacting their full practice traditions would in pre-industrial times be understood as removing the artisanal elements from a practice and limits the improvements that can be achieved. This concept was discussed in Chapter 2. Consequently, it is possible to conceptualise that NSW local government must return to the practice traditions of CI and replace the existing neoliberal architectures of practices, when the benefits hoped for in service reviews are finally recognised as limited. In conclusion, a CI practitioner succinctly described the future of CI in her organisation:

Practitioner B:
"So, it could potentially be a much more siloed approach [the future of CI in Portside City Council]. *And essentially, the use of frameworks or tools could fall back on the experience of people within those service units."*

Summary

In engaging with practitioners from NSW local government this research has considered the conditions under which NSW local government practices CI. This research has highlighted multiple frameworks in operation that have often isolated the CI practitioner and limited their role to using tools in a decontextualised manner. NSW local government acknowledges it is pursuing an agenda of reform arising from neoliberal policy enactment by state government. Despite the circulation of this discourse inside and outside of NSW local government, the desired results have not been forthcoming. A top-down approach has been adopted by top management in NSW local government that has shown to be lacking in a clear understanding of the practice traditions of CI. This is exemplified in the compilation of their Annual Reports, for example. Of those reports viewed, only one NSW local government acknowledged the work of CI in driving a greater emphasis on customer requirements. This disconnection between the sayings, doings and relatings of top management and the day-to-day operation of the organisation is enabled through neoliberalism enacted through management practices. These management practices have a short-term focus that has seen a discernible shift away from a critical stance. The resultant absence of problem definition methods sends a clear message of NSW local government attending to business as usual as an organisational priority. This has frustrated improvement actions by CI practitioners and lead to their role being best described as 'CI Operative', a term which applies by extension to workers who wish to make improvements to work practices. The CI Operative is a term that may be used to identify the individual that deploys a limited number of CI tools in a decontextualised manner in an episodic

manner. When tools are implemented into an organisation by consultants for example without consideration of the appropriateness of choice those workers that are left to use them often do so in a manner that limits results. Most often this is not the failing of the individual and their skill set rather it draws attention to the whole of organisation approach to CI with a foci of quick wins instead of CI being a long-term organisational strategy. In sum, this chapter has explored the conditions that have worked to shape the conditions of practice of the CI practitioner and how these have arisen through the downward pressure of fiscal management resultant from neoliberal policy.

In the following section I introduce the CI practitioners and a group of NSW local government workers to ALS. It is through the use of ALS that these two groups are able to experience problem definition, problem-solving methods, action planning and reflection firsthand. Through their participation the group members enacted many of the practice traditions of CI for the first time, or were able to return to them. This then engendered solidarity amongst the group members and led to the emergence of a critical disposition.

Chapter 6 Research data analysis and findings continued

RQ 3:How can the use of reflective practice influence ongoing CI practices?

This chapter analyses the data and presents the way ALS have enabled the new site practice of critical reflection. Furthermore, this chapter draws attention to the ways which some negative impacts of certain practice architectures inhibit a CI approach that focusses on an in-depth stance to problem definition. In this chapter I identify the way ALS make possible cohesion, solidarity, problem definition, problem-solving, action planning and critical reflection. The following section provides a summary table that is inclusive of the number of participants that joined in each of the ALS. The two sections that follow each present one of the four ALS and includes the data and analysis from interviews conducted with each problem-presenter and ALS participants. Lastly, a chapter summary that brings together the themes identified from each set in the context of CI is offered.

Defining problems in solidarity

"[…] I also felt really supported and I felt like people were genuinely interested in helping, which was really interesting because no one gave any advice, you just asked questions."

I commence this section with a quote from one of the research participants. The significance of this quote lies in how quickly the establishment of a new site accompanied with new ways of doings, sayings and relatings may occur. The comment suggests that this new site enabled dispositions of solidarity and criticality to be established. Recalling Chapter 6, learning and knowledge is created in social-relational ways when workers come together, therefore the development of a site that enables these is of benefit to both the organisation and the worker. The establishment of these dispositions among the set members enables the elucidation of work-based problems. Action learning sets contain many similarities to Kaizen. As discussed in Chapter 4, Kaizen is a bottom-up, worker driven approach to CI. One of the notable similarities that exist between the two methodologies is the asking of insightful questions in the quest to develop a clear problem statement. In Kaizen such an act is recognised as the '5 Whys'.

The above quote provides evidence that there has been a shift towards practicing the enactment of problem definition differently. This is important for the continuous flow of improvement to be enacted that is represented in the practice traditions of CI. When workers adopt quick fixes and short-term solutions it usually fails to bring long-term sustained outcomes (Chiarini 2011; Crosby 1989; Deming 1986; Imai 1992b; Juran 1992; Mohaghegh & Größler 2021). Moving to this disposition of criticality makes possible the elimination of root causes. Identifying and removing root causes is acknowledged in the CI literature as benefiting product and service quality, lowering costs and improving worker morale

(Mohaghegh & Größler 2021; von Thiele Schwarz et al. 2016). In Chapter 6 the need to foreground problem definition and the development of problem statements as a critical and fundamental aspect of CI is discussed. The ALS has allowed a deep dive into the analysis of work-based problems that give rise to a problem statement, which has been absent from much of the actions of both the CI practitioners and workers alike.

Summary table data collection at each site

By way of summarising the research actions undertaken at each research site the following table serves to identify the number of participants and the activities participated in.

Table 3 presents both the data collection methods and the participation numbers recorded at each site. Within the field of qualitative research it is said that field research is beset with a variety of issues (Corsino 1987; Kleinman 1993; Scott et al 2012). This research was no exception. Using a lens of TPA is to contend it is the architectures of practice enabling and constraining both the practices of the worker (set members) and the researcher. This notion goes some way to explaining the variation between what was planned and the reality of running an ALS with two different groups. Furthermore, it highlights the adaptability of both research and ALS practices (Hopwood 2021).

	Method of data collection	Crop Swap Cycle 1	Crop Swap Cycle 2	CityView Council Cycle 1	CityView Council Cycle 2
ALS - number of participants	Audio recording, field notes & observations	10	7	14	16
ALS - number of problem-presenters	Audio recording, field notes & observations	2	1	1	2
Semi-structured interviews conducted with problem-presenters	Audio recording & field notes	Yes	No	Yes	Yes
Triangulation interview held with problem-presenters	Audio recording & field notes	Yes, for problem-presenter 1	No	Yes	No

Table 3 Participation by research site

Table 3 assists in identifying some of the differences in the data collection. The ALS conducted at

CityView Council contained the greatest number of participants when compared to those run with Crop Swap. The number of problems presented were the same regardless of the number of participants. No follow up interview was able to be conducted with David from Crop Swap despite numerous attempts to schedule a time with him. Unfortunately, I was not able to conduct a separate interview with a predetermined third person for David, Yvette and Tony. However, Tony did discuss with me his inability to provide details of an interviewee as the organisation was embarking on a major restructuring initiative resulting from a NSW local government merger. The missing data from both Yvette and David may be resultant from pre-existing work-based practices that preclude the seeking out of feedback from others; either there is no discourse existing in their places of work that facilitates such a conversation, or the organisational structures see these individuals working in isolation with little input from others.

Action learning sets

Introduction to ALS

In this section I introduce the first ALS conducted with a group of CI practitioners. Action learning sets are a social relations approach to problem-solving that consist of a continuous process of reflection and action where set members work on real work-based problems with an intention of "getting things done" (Brockbank & McGill 2003, p. 11). The collaborative nature of ALS establishes a disposition of solidarity amongst set members and facilitates a practice site where an active stance is enabled that benefits the formation of problem statements and action. A detailed explanation of the ALS methodology is presented in Chapter 4. In that chapter ALS were identified as a way of returning to the formulation of problem definition statements, action planning and reflective practice. ALS mirror those features of Deming's PDCA, thus aligning ALS and CI.

The use of ALS enabled the elucidation of clear problem statements that is evidence of the changing discourse to enable presentation and definition of a work-based problem and a shift to an embodied disposition for actions to resolve the problem. For some set members the act of presenting to a group of peers was at first thought to be burdensome but this was not their lasting impression. For example, Yvette shared how she *"[…] initially found it confronting "but I do think it went well*". Despite her initial apprehension about presenting to peers, Kim was able to critically reflect on her experience *"[…] that's okay, to be a little bit vulnerable in that situation." "[…] other people understand*" and "*It gives them the chance to actually be involved."* These immediate reflections indicate a positive shift to solidarity (new ways of relating) amongst the set members as they willingly commence engagement with ALS sayings and doings.

As discussed earlier in this chapter, the ALS were set up to reinstitute problem definition statements that were identified as missing from the practices of CI in NSW local government. There are similarities between ALS and CI, as noted in the above paragraph. Deming's PDCA is one such approach, but ALS encompass many similarities to Kaizen, such as the as the defining of problems through the asking of insightful questions. This is recognised as the 5 Whys in Kaizen. The coming together of workers with a

sense of solidarity is also evident in the practices of Kaizen. Furthermore, Kaizen promotes the involvement of workers in the same way ALS do where the similarities include empowerment, commitment to solve work-based problems, problem definition, action planning and reflection in an iterative cycle. These similarities between ALS and Kaizen are presented in Chapter 4 of this thesis. The consideration of improvement is embedded in Kaizen where Imai (1986) sought to benefit not only the organisation but constructed a methodology that offers gains in personal development to those who participate and practice Kaizen (Prošić 2011). Learning and the work of the CI practitioner is not widely discussed in literature. Exceptions to this can be found in scholarly works discussing Japanese CI methods of Kaizen and Kanban see for example Leopold and Kaltenecker (2015). However, a lens of TPA enables this phenomenon to surface through analysis of the ALS. When CI is enacted with the application of tools and undefined problems, the opportunity for learning 'how to go on' in the practice of CI may be lost. However, the evidence from this research is apparent when the elements of problem definition statements, worker solidarity and critical reflection are able to be enacted and learning is able to be reinstated specifically. This then enables a return to CI practitioner praxis. This is considered to be a contribution to both the literature of CI and CI practitioner professional learning.

In the following section I present the first ALS conducted with members of Crop Swap. The time set aside for the set allowed for two problem presentations. Anne was the first to present her problem to the set members and she is followed by Tony.

ALS 1 – NSW local government CI practitioner group (Crop Swap)

As discussed in Chapter 2, practices are enabled and constrained by the architectures of already existing practices of a site. Practice architectures prefigure possible paths of action. The material-economic, social-political and cultural-discursive arrangements at a site influence how practices unfold; this is why it is necessary to describe these arrangements as they were recorded at a site. In this following section I am zooming in on the materiality of the site of the first ALS for Crop Swap.

The site for this ALS was a boardroom on one of the floors of the Sydney Business School that is located at 1 Macquarie Place in the Sydney CBD. The building contains offices including the British Consulate General and the University of Wollongong. With views overlooking Circular Quay and Sydney Harbour and a number of amenities including bars and restaurants, a sense of prestige is reinforced and associated with the building and its tenants. The prestige of the building's location and high-profile tenants makes a strong social-political statement that legitimizes the relationship between members of Crop Swap and their decision to participate in the research.

The boardroom available for the ALS was situated on a secure floor locked off from the university students who are located within the building. Only staff of the university had security access. This necessitated Crop Swap members meeting at reception on another floor and being escorted by a worker from the site. Reception was supplied with a list of expected attendees by the researcher.

The room allocated for the ALS contained a large oval table and chairs to accommodate 25 people. One wall of the room contained large glass windows that provided views over Circular Quay, the Sydney Harbour Bridge and Sydney Harbour. The walls were unadorned and painted in a neutral, pale, gray paint. Overall, the room appeared clean and neat and ready for the meeting members to be seated. The material-economic architectures of the ALS site establish it as a prestigious business location with many international businesses being housed at the same address. This notion of building, location and international commerce further legitimizes the ALS. Additional chairs were sourced from nearby rooms to accommodate the additional set attendees. The room now appeared crowded, with the CI practitioners sitting in close proximity to one another and others having to take up positions on the corners of the table or sit away from the table. The resultant seating arrangements were not ideal. Reflecting upon my experience as a facilitator, those without a seat at the table often tended to disengage from the discussion. A more suitable arrangement would have been access to a larger room that could comfortably seat all those present. As noted by Stern and Green (2008, p. 391) "a seat at the table [...] elide the structural imbalance between contributing participants". In adopting a TPA view, this quote draws attention to the influence the materiality of the seating arrangements has on both the social-political and cultural-discursive elements of a practice. Moreover, the prevailing conditions of practice saw the CI practitioners attend the ALS not to achieve a material-economic outcome but instead to attend as peers engaging in cultural-discursive practices of the ALS and their shared discourse of CI. The social-political conditions enabled each CI practitioner to relate to one another as equals, where no individual was given power over another. The present influence of the material-economic arrangements was also working in ways to enable and constrain both my practices of research but also that of facilitation. As a researcher I believed it was wise to let the set practices unfold from the materiality of the room setup, but my facilitator practice wanted to intervene and create a space for all participants to contribute equally. I made the decision to proceed with the research as planned but to draw responses from those not comfortably seated at the table.

Establishing a site

The first site practice was inducting the CI practitioners to the site, whereby in case of an alarm being triggered the set members would be aware of the location of the closest fire escape, exit the building and regroup at the dedicated meeting point for building evacuees. The ALS members were provided with the location of toilets and the times for refreshment breaks.

The final act of introduction was the eliciting of ground rules of the set by asking those present to identify the behaviours and actions they wanted to see or be excluded from this set. At this time, I am zooming in on the 'doings' that the group identifies as supporting ALS practices. These included the following: "honesty"; "no judgement"; "agree to disagree"; "establishing a new understanding [of the issue]; "no talking over each other"; "listen actively"; "embrace the experience"; "don't discount the obvious things"; "don't jump to a solution"; "not being a problem-solver"; "[recognise] everybody learns and interacts in a different way". Through these ground rules the set members were establishing the architectures of

practices unique to this site. In zooming in on 'sayings' the following ground rules: "agree to disagree"; "no talking over each other" and "no judgement" together will work to further constitute the practices that are accepted by the set members.

The set commenced with each of the members introducing themselves to the other members. Without any prompting they shared their name, job title, and the NSW local government they worked in. Most members also included a comment as to their reason for attending the set, for example: *"[...] I am here because it sounds something new that I haven't been exposed to, action learning. I'm here to explore really and learn a new tool."*.

This statement from a practitioner clearly positions their understanding of CI as the actioning of tools.

ALS step 1 – Problem presentation

Anne CI practitioner from Shelly Council

Set members were invited to present a work-based problem to the group. Anne indicated she had a work-based problem to share. The remaining set members were provided with resources (see Appendix 6) that they could use to record their questions to the problem-presenter that also included exemplars of question phrasing. The problem-presenter had a worksheet that was designed to assist them with their reflections to be fed back to the group at the end of their time as problem-presenter (see Appendix 7).

In summary, Anne's problem statement centered on limited resources available to facilitate an improvement framework across her organisation. Anne spoke of a project in her organisation and began talking about a team member, Sonya and Sonya's work on the project.

"Where is Sonya's [a team member allocated to the project] *time best spent to make it work? Or are there other things that I haven't considered, ways of doing improvement that wouldn't take up too much of Sonya's time?*

In the following section Anne receives contributions from set members. The purpose in asking questions enables both the problem-presenter and set members to unpack the problem statement to arrive at a clearly defined problem statement.

ALS step 2 – Receiving contributions from set members

At the conclusion of the problem-presentation, set members asked a number of clarifying questions, for example:

"What is the appetite from the team leader's perspective, [...]?
Anne: *"They just want to map their three processes and be done."*

This statement provides some insight of how CI is perceived and understood at Shelly Council. It is undertaken in an episodic manner without reference to the aim or purpose of the project. It would be reasonable to concede CI is an item to be ticked off a list of activities by workers as they work through their identified performance objectives.

"Is there any a pull from your team instead of that high energy and exhausting push?"
Anne: *"[…] even if Sonya was never at her desk, even if the approach was to have her in with each team, I don't know that she'd be able to get to every single team."*

In the above question to Anne it is recognised that pushing CI out into the organisation is exhausting. Despite the exhausting nature of pushing CI, Anne is dedicated to the completion of the task as it has been presented to her by the GM.

"Is there any benefit now to hit that KPI?"
Anne: *"[…] when he [General Manager] first came [to Shelly Council] there was no documentation of any processes, and he's a very process orientated person. He likes things documented."*

Considering the examples above, the questions that were put to Anne demonstrated engagement with the notion of 'care-filled' enquiry, that engenders a shift to another critical disposition. The general manager's directive to Anne to have three processes mapped by each team by the end of the year provides clear evidence of the enactment of managerial myopia. Such myopia may be explained by the manner in which the organisation's neoliberal policies may be forming architectures of practices that reduce the likelihood of praxis-oriented approaches to CI. Myopia is recognised as a management practice that is enacted by adopting a short-term view that focuses on an end point. Such a management practice clearly works to constrain the ongoing flow of CI throughout the organisation. Suspending the logic of neoliberal policies with those of the ALS has supported Anne to pivot her disposition to that of the CI practitioner. The theme of neoliberalism and how it has worked as an architecture of practice in NSW local government - for example the decontextualised use of CI tools - has influenced the manner in which CI practices are enabled. This is presented in Chapter 6. However, when the CI practitioner, such as Anne asks: *"why haven't I done that?"* (that is, questioned the reasonableness of the task) this constitutes the enactment of critical reflectivity and presents the opportunity for praxis to develop. This is a necessary ingredient for an organisation to have; the conditions which may enable the achievement of continuous, flowing improvement, as described in Chapter 2. The continuous flow of improvement activities is the perpetual enactment of the PDSA cycle or similar. Without architectures of practice that enable critical reflection, the work of the CI practitioner may be bound up in acts of the CI operative.

In considering the evidence presented in this example with Anne, it is possible to see the emergence of new site practices. The prevailing neoliberal architectures of practice have been momentarily suspended and so enabling problem definition through collaboration and genuine enquiry through solidarity amongst

set members has in turn supported Anne to move to a critical disposition.

In the follow section I present data from the set that supports the reconceptualisation of the problem statement formulation as a practice. In reviewing the definition of what constitutes a practice as discussed in Chapter 2, Mahon et al. (2017, pp. 7-8) defines it as: "a socially established cooperative human activity involving utterances and forms of understandings (sayings), modes of action (doings) and ways in which people relate to one another and the world (relatings) that 'hang together' in characteristic ways in a distinctive project". Moreover, the CI practitioners experience first-hand the practice of careful, thoughtful problem definition through engagement with others and the act of critical reflection.

ALS step 3 – initial reflection shared with set members

At the conclusion of the asking of questions, time is taken for the problem-presenter to reflect. Chapter 5 discusses the manner in which a lens of TPA recognises the cultural-discursive, material-economic and social-political elements that together constitute a practice. Kemmis and Grootenboer (2008) aver that the form a practice takes will be in part shaped by the circumstances and settings of the precise location in which it occurs, together with where it is situated in time and history. How the practice turns out is shaped by the history and experience of those involved, but it is also shaped against a background of cultural histories (including how discourses change over time within particular groups in a particular place); social histories (the histories of different groups and societies that are shaped by both inclusion and omission, different identities, and unity and conflict) and material-economic histories (how objects and other things in the physical and natural world and economic activities and relations have changed over time). Practices therefore are dynamic and evolving as these are reproduced and transformed over a period of time as they come up against changing needs and demands in a variety of places and times. The agentic qualities of practices shape cultural, social and material-economic structures and cultural, social and material-economic practices dialectically, and mutually shape individuals over time through practice (Kemmis & Grootenboer 2008). Chapter 6 presents the work of Reg Revans and foregrounds the practice of critical reflection and action in an ongoing iterative cycle that is also immediately recognizable in Deming's PDSA cycle. For the problem-presenter, the act of reflecting critically upon the questions posed to them has the potential to raise questions about the project, the moral purposes of institutionalised practices and the consequences of them coming to practice differently. This notion of coming to practice differently is presented in Chapter 5 where I discuss the way in which Kemmis (2020) conceptualises learning to occur when people come together and engage in a new topic or field of experience, where they can be observed being drawn in or being stirred-in to the practice that then sees these CI operatives go on to enact their practice differently.

The concept of changing practices is dependent upon the circumstances, setting and location in which the new practice takes place and a new understanding of learning that reflects a shift to practicing differently established. In the following section Anne shares her reflection back to the set members:

The questions being posed enabled Anne to question her current practice *"[...] why haven't I done that? That's really obvious."* Anne added that the questions enabled her to think more broadly: *"[...] really good insights that made me click on a few things."*

*"I liked how you just said, "How are you going to handle speed?" I thought, [*use additional internal resources such as champions to assist with the rollout*], I know some decisions have been made* [by top management] *but I wouldn't be doing my job if I didn't give them the full picture."*

Lastly, Anne added:

"The most important thing, is keep talking with others. Keep being honest. None of this [top management perceptions of CI practices] *will change unless I have some really honest conversations with people."*

In the sharing of this critical reflection from Anne there is a discernible shift in her thinking of what is required of her in the role of CI practitioner. The practice of critical reflection has teased out the possibilities available to Anne through the site architectures of ALS practices. Anne is moving from the rule following disposition of the CI operative to that of the CI practitioner, as she has conceptualised the 'right thing to do' is to enter a critical discussion with both her manager and the General Manager, because not to do so *"[...] wouldn't be doing my job"*. In this insight of Anne it is possible to note the way the ALS site architectures have prefigured a different discourse. In embarking on the 'right thing to do' Anne's new practice is in stark contrast to the rule-following CI operative. This suggests that where site architectures emphasise and enable neoliberalism, they simultaneously constrain the enactment of praxis. The ALS has seen the development of new ways of relating to one another in an interconnected manner where the set members are themselves invested in the problem and its resolution. This example re-established the social-relation arrangements of CI that have been lost through the enactment of organisational neoliberal practices in pursuing change through economic reform. The enactment of ALS practices has seen a return to the collective production of CI as the set members orient themselves with one another in shared language/cultural-discursive, material-economic and social-political arrangements that has served to secure solidarity amongst set members. The discourse of care was also present as the set members asked questions to assist the problem-presenter to clearly define the problem they were experiencing. Outside of the set, the CI practitioners and their practice is enacted in response to neoliberalism. While it has been shown that the discourse of change and improvement evident in neoliberalist policies may be attractive to NSW local government, it can be found to be counterproductive when the practices that we are able to observe in CI resembles very little in the way of CI practice traditions. However, in the establishment of new site architectures the sayings, doings and relatings of the ALS have assisted in the re-establishment of the CI practitioner disposition. A renewed praxis orientation sees Anne striving to do what she considers to be right, ethical and proper (Kemmis & Smith 2008b). Praxis represents adopting a moral and ethical disposition. To the CI practitioner this is enacting critical reflection where the CI practitioner considers the unsustainable approaches and top management

directives that work to stymie the practice traditions of CI. The emergence of praxis as enacted by the CI practitioner is presented in Chapter 3.

ALS steps 4, 5 and 6

Anne

Due to the quarterly meeting structure of Crop Swap, it was necessary to complete steps 4, 5 and 6 outside of a set meeting.

In allowing time to elapse from the set and her return to the workplace, Anne was interviewed once more to see if her original plans for action have been implemented or changed and what has influenced those changes in her return to work. When asked Anne responds:

"[…] I've made a pretty firm decision now on where I'm going to go; the second is that I'm taking more care, cause I know I'm neglecting certain things about my current role". The opportunity to shift her practice disposition has enabled Anne to share changes to past practices *"I'm taking much more care around those things on the current project."*

Firstly, this quote from Anne is illustrative of the manner in which solidarity is enabled through ALS practices, particularly of asking insightful questions in a manner that is both supportive and at times challenging to the problem-presenter. Secondly, Anne foregrounds the critical nature of critical reflection in CI as a practice of the CI practitioner and positions it as necessary for coming to practice differently.

When asked about critical reflection she noted: "[critical reflection has enabled] *the way that I'm currently working and it also helped me clarify the kind of work I want to do.". "I am now being more careful that I do those things that I was neglecting previously that was causing the problems that I was having,* [I am no longer acting on instinct] *I'm being more mindful, which is in return is clearing up the original problem which I had, […] I've not had the same issue."*

It is possible to see how in gaining clarity over the problem and enacting action plans Anne has been able to resolve the problem she brought to the ALS.

Anne has taken additional time to critically reflect further. It is possible to see the positive effect that returning to praxis as a true CI practitioner has had:

"[…] I feel like I'm doing better work, which is giving [me]more confidence. […]I'm more able to self-manage, self-regulate, drive my own direction, so that I feel like I'm, [Anne becomes emotional] feel more confident […] [to] make the changes I need to make, being more successful in my role; the other outcome is that I run better projects, which means better outcomes for my customers, [such an outcome is greater], *than I expected it ever could have when [I] look at the ripple effect that self-reflection can have."*

Anne continues sharing her critical reflection: *"[you come to the realisation]* that you're not perfect, you know you can make mistakes and you do need to change, you need to continuously adapt and change how you do things."

In the above comments from Anne it possible to identify how the practice of critical reflection is able to transform personal practice. The evaluation and uncoupling of Anne's past practise to the reconstitution of a new practise in its place is evident. The emotional tone permeating the dialogue indicates Anne's embodiment of critically reflective practice. In enacting critical reflection Anne is also demonstrating she knows how to go on in the practice traditions of CI where reflection initiates an ongoing cycle of improvement.

The following quote demonstrates that, having engaged with praxis, Anne's disposition shifts to that of the CI practitioner. In continuing to ask herself questions of what is true and right for her to do she is represented as a CI practitioner:

Anne shares her personal insights gained through critical reflection: *"[…]I've learned what I'm naturally good at and what I naturally want to avoid, and I've made a decision that I want to, I want to be aware of the things that I avoid, but I want to forge a path in what I'm good at, so I've learned my preferences, some of my strengths and some of my weaknesses."*

At the conclusion of my interview Anne nominated Audrey, who was both a set member and a colleague, to participate in the triangulation interview. The interview took place over the telephone during work hours. A set of standard questions were given to Audrey prior to the interview to assist in preparing her responses.

The purpose of the interview with Audrey was to identify if ALS practices had been translocated to another site and, if so, what those practices are and have they changed from how they were enacted at the set. The interview questions sought to identify if set practices were being enacted by Anne, was Audrey able to share the observable impacts of what was practiced in the workplace, and on Anne in how she undertakes her CI practitioner role. In the interview with Audrey it is possible to see how Anne is able to go on in the practice of asking insightful questions that assists in the formulation of a problem statement. It was noted by Audrey that Anne has since adopted the practice of asking insightful questions of team members in their team meetings: *"Anne always asks questions rather than piping up like I normally do and say well why don't we do this, why don't we do that."* At this time Audrey also reflects on her own practice and sees an opportunity to change it too. *"I need to put more conscious effort into trying that approach"*.

Audrey noted how Anne is continuing to use the practice of asking insightful questions and not giving advice. The example was a meeting with top management where some of the managers present were

noticed to be rolling their eyes as if to say 'here we go again' while the General Manager was speaking. Anne commenced asking insightful questions and *"he [General Manager] suddenly has the epiphany that maybe it's not the team that needs to change, maybe it's he who needs to change."* Audrey shared how after the meeting the General Manager approached Anne and "*he came up with the idea of perhaps seeking a mentor external to the organization etc*" [to gain some assistance].

The General Manager's apparent engagement with critical reflection prompted by Anne asking insightful questions provides another example of how architectures of practice do not only work in a downward motion but work in multiple directions in an organisation. It also shows how practices enacted across the organisation are both enabled and constrained simultaneously.

It is possible that existing neoliberal and managerial practices have worked to enable architectures of practice that have led to NSW local government reforms and forms of management that at best resemble *technë*. Kemmis and Smith (2008a) consider *technë* to be the enactment of management actions that are undertaken to achieve pre-designed outcomes, for example delivery of KPIs determined by state government legislation as discussed by Anne in the ALS. The pursuit of a neoliberal policy agenda constrains the possibilities for praxis and replaces it with rule-following (Kemmis & Smith 2008b). In sharing the experience of the General Manager, Anne provides some insights on how it may be possible to see the emergence of a new practice site in the Office of the General Manager with its own architectures of practice that previously enabled a focus of achieving KPIs regardless of the rationality behind them (such as documenting three processes per business unit). It is possible to identify from this example how existing site practices remain in place and contribute to the achievement of some organisations while simultaneously constraining others, such as sustainable CI, in NSW local government.

In presenting her problem to the group Anne was able to develop a clear problem statement that was different from her initial understanding of the problem. In so doing Anne was able to formulate a plan for different possible future actions. A key consideration in her approach to problem resolution was the identification of how she had previously been working with a rule-following disposition and not as a CI practitioner engaging in the practice traditions of CI. Participation in the ALS has enabled the possibility of praxis for Anne. Moreover, Anne has embraced praxis and enacted resultant new practices. Kemmis (2021, p. 289) recognises "learning is a process of coming to practise differently". Participation in the ALS re-establishes the connection between CI and learning. This is made possible in the establishment of a clearly defined problem statement, the opportunity for continuous critical reflection and action planning. These steps are mirrored in Deming's PDSA cycle as presented in Chapter 5. ALS practices have enabled collaboration and a sense of solidarity to emerge within the group that was not present in their previous practitioner interactions as Crop Swap. This assertion is made from my observations and prior membership of Crop Swap. Collaboration and solidarity have been discussed by Imai (1986, 2012) in his descriptions of Kaizen. Juran, Crosby and Deming have all have foregrounded effective communication and teamwork, which are elements that help identify the presence of solidarity amongst workers.

Through analysis of the ALS practices and how these have enabled Anne to come to practise differently it is possible to reconceptualise ALS as a site that also enables CI practices. The collaborative nature of ALS establishes a disposition of solidarity amongst set members and facilitates a practice site where an active rather than passive stance is enabled that benefits the formation of problem statements and action. ALS practices can encourage a shift in disposition from that of the CI operative (notable for its passivity/rule-following) to CI practitioner. In her participation in ALS practices Anne was able to re-engage with praxis and the practice traditions of CI.

Problem-presenter 2 – Tony

In this section I introduce Tony as another member of Crop Swap. Tony's current practices of CI have been shaped by his years working in information technology and most recently working in NSW local government in a new role that includes technological business improvements. Through enacting critically reflective practice, Tony made explicit reference to how he had moved from not having a clear path of action to identifying and pursuing actions: "*I'm glad I went forward and put my case forward* [to Crop Swap]. Tony noted he found the experience of problem presentation and definition with other Crop Swap members personally fulfilling and is motivated to work on the problem actions.

Following is the problem Tony presented to the ALS:

"I'm trying to get buy in from the leadership and the exec". "[...] from the GM down to the line managers are very much happy to do business as usual and be very reactive in their service improvement initiatives." Tony adds there is disconnect between what top management say in value and vision statements and the taking of action. Tony shared the excuses for inaction made by top management: "*We're too busy, we don't have time, it's going to cost too much. It's political.*" In representing Tony's problem statement through TPA there is evidence of Tony wanting to enact the practice traditions of CI; however, the existing architectures of practice are working from the top-down in the organisation to constrain innovation and enable business as usual.

ALS step 2 – receive contributions from set members

Following are some examples of clarifying questions posed to Tony:

 "*Is there a level above you that you're getting direction or drive from at all?*"

In his response, Tony identifies the changing social-political arrangements at his workplace: *"The current structure it's a group manager. We have a general manager, deputies, and group manager, but that's going to change in the next few weeks"*

"Does the organisation understand what your role is?

Tony describes the challenges he is facing in the way the workplace is relating to him in his CI role *"[…] the role sits in IT, it's taken me six months to disconnect from desktops and PCs and laptops. If you had asked me this question six months ago, I would say no, they absolutely didn't know who we are. They thought we were just a part of the service desk."*

"Can I ask you a challenging question Tony? How many supporters do you need?"

Tony takes a minute or two to consider his response before replying: *"I think I just need the one. Just that key role to drive it. Just one sponsor, the GM."*

At the conclusion of the questions to Tony, Anne speaks up:

"I think our group is very motivated by improving, and we all want to see improvement. There are definitely times it causes a huge amount of frustration [for us]" that others in the organisation are *"perfectly happy with it just going along the way it is."*

The representation by NSW local government as outwardly committed to CI but internally not actively pursuing it was also surfaced in Chapter 3. The re-emergence of the theme in the ALS is indicative that the phenomenon is being experienced more widely across the sector. The prevailing positioning of CI in local government is contributing to its unsustainability.

ALS step 3 – reflect back

After taking a short time to reflect, Tony chose to share the following with the set members:

"I found it very helpful. I found that the feedback was useful."

Tony identified he needed to identify those NSW local governments that have adopted smart technology and to gain information from them around their strategy and approach *"Rather than me trying to reinvent the wheel"*. Tony understood he needed to be able to provide top management with detailed information in order to gain the go-ahead for the project. *"If I can get more people putting their hands up and saying, 'let's consider doing this,' maybe that will get some more traction"*.

The asking of insightful questions has enabled Tony to develop a greater understanding of the problem that has enabled him to develop a clear definition of the problem.

ALS steps 4, 5 and 6

Tony

Tony chose a face-to-face interview that was conducted approximately two weeks following the set, in a café away from the workplace.

In reflecting upon his experience in the ALS Tony noted how the insightful questions had enabled him to consider a much wider set of potential actions he "[…] *had not previous considered"*. Specifically, Tony identified the asking of insightful questions by set members may be challenging to the problem-presenter, but he did not find it so. Moreover, it was the chance to critically reflect afterwards on these questions that has offered him up an opportunity to "*either confirm what I am doing, or challenge it and say how can I change, how do I change that thought."*

In the sharing of his experience Tony notes that to act on a problem without critical reflection is limiting. In his enactment of critical reflection the CI operative (Tony) pivots to the CI practitioner in his comment. "*[…] look back to see from the years of professional or personal development, what is applicable to this situation."* In support of this reflection from Tony, Kemmis (2005, p. 392) contends:

> "Indeed, expert practitioners deliberately explore this reflexivity in and through their practice, especially when new features of a situation come to light in the course of their making a response to a particular practical problem in a particular practice setting."

Kemmis' assertion (2005) suggests that practice as undertaken by an 'expert' necessitates the constant iteration of asking insightful questions, and critical reflection that works in such a way to constantly refresh the practitioner's practice as they experience new sites and problems.

Tony goes on to share that: "*we need to take time to plan, we need to take time to reflect, we need to take time. When you try to do nothing, that's when everything starts surfacing up."* In this comment from Tony it is possible to trace the words of Kemmis (2005) quoted above. Importantly ALS practices have enabled Tony's practice to be understood and reshaped as he has developed an understanding of the connectedness between critical reflection and the work of the CI practitioner where each is mutually supportive.

Unfortunately, a triangulation interview with a third person was not able to be undertaken due to organisational restructuring at Tony's workplace. The restructuring occurring at his place of work was a result of the Fit for the Future program initiated by the state government of New South Wales, which resulted in many local government entities being amalgamated. At the time of the amalgamations "arguments were advanced on the advantages of size with respect to planning, staffing and the ability of local government to collaborate with higher tiers of government" (Drew et al. 2021, p. 2). However, financial stability lay at the heart of the NSW state government's amalgamations strategy (Drew et al. 2021). Such social-political arrangements have seen job losses in those NSW local governments that were amalgamated. Unfortunately, Tony lost his job, too. Embarking on a strategy of NSW local government mergers by the state government identifies the social-political arrangements which prefigure and shape the content and conduct of practices inside NSW local government. Such an undertaking by the state government is driven by a neoliberal policy decision to drive financial sustainability in the NSW

local government sector. The Fit for the Future state government initiative is presented in Chapter 4.

Crop Swap ALS 2

Site description

As with the previous ALS, I commence the introduction to the site by describing its materiality. As presented in the description of ALS 1, choosing to first describe the materiality in no way attributes greater significance to it over the social-political and cultural-discursive architectures of practice.

The site for this ALS was a meeting room located within the main office building of Willowvale Council. Like all floors in this building, apart from one level that accommodates the customer service area, it was a secure floor locked off from access by the general public. This necessitated Crop Swap members meeting at reception on another floor and being escorted by Carl as the host of this meeting. The room allocated for the ALS contained a rectangular table and chairs to accommodate 10-12 people. There were no windows in the room and so that necessitated the lights being switched on for the length of the meeting. The walls apart from one were unadorned and panelled in a golden timber veneer. The remaining wall was glass that looked onto a waiting area complete with chairs, coffee table and sofa. The meeting room was set up and ready for the planned number of meeting members to be seated. When the time to commence the set arrived only two people that had attended the previous set were present. More time was given over to await the arrival of more set members. The material arrangements of a seating area outside of the meeting room facilitated the additional Crop Swap members joining the set. The ability to observe those waiting to join the Crop Swap provided an opportunity to invite them to join the set. Without these additional Crop Swap members joining the set it was probable the ALS would have needed to be rescheduled to another date.

Site practices of introduction

I undertook a brief site induction that included the location of the toilets and the start and finish timings for the ALS. The saying, doings and relatings of ALS practices were outlined for those who had not previously participated in one. In addition the sayings, doings and relatings of academic ethical research practices were enacted in introducing my research to the new participants. Those new set members were requested to read the participant information sheet and consent form and sign both if they were willing to have their data included in the research. Some queries were made over the participant information sheet and these were answered. The first task of the ALS introduction was to review the ground rules established by the previous set. No additions or subtractions were made from the list that was generated in the first ALS.

Introduction of set members

Set member introduced themselves to the group. Each set member provided their name, job title and the

Council they were employed by. In this set the members provided a description of their role and how it is connected to continuous improvement. For example:

"[I work] for Big City Council, in the business and service improvement team. I'm new to the team. It's been about 6 months, so I'm very much in a learning space. I actually spent most of my time rolling out Lean training."

"I'm part of the [CityView Council] on a maternity leave contract. I'm in Workforce Planning, working on organisational development and projects, and one in particular is around business improvement."

In these two examples we have two different representations of CI. In the first example we see a new CI practitioner learning the craft of CI through the rolling out of training in a CI framework. The second set member conceptualizes CI as a 'learning' opportunity. This points to the heterogeneity of CI practices across NSW local government.

The same resources were provided as previously: a handout that contained examples of insightful questions that the participants could refer to for assistance with question construction, and the problem-presenter was provided with a list of questions to support their personal reflection.

ALS step 1 – problem presentation

David

David works at Waterside Council, a newly amalgamated NSW local government situated on the south-eastern edge of Sydney. His role is a Business Improvement Consultant working predominantly with the customer service team and he works across all activities and IT systems associated with the running of this area. Through David's description and the foci of his role it is possible to see that Waterside Council have structured his role in response to the neoliberal discourse evident across NSW local government. Earlier in this chapter it was identified that David's role in Waterside Council collects data to populate IP&R reports that are submitted to the Office of Local Government. The IP&R reports represent an outcome of enacted neoliberalism in NSW local government and for a number of local governments which have shifted the discourse away from continuous, flowing improvement.

David is responsible for migrating two databases to provide a single 'source of truth' *for organisational use. '[...] what seems to be best practice out there at the moment in terms of keeping up to date with whatever the Department of Planning decides this is what we're running a report on."*

The problem statement David has presented to the ALS members is lacking in clarity and necessitates further clarification from him. Examples of questions posed to David are listed below:

ALS step 2 – receive contributions

Following are some examples of the clarifying questions posed to David:

"What is it you are asking [of us]?"

David reconsiders his problem statement "[…] *what seems to be best practice out there at the moment in terms of keeping up to date with whatever the Department of Planning decides this is what we're running a report on"*

"Have you identified your key stakeholders?" "Have you done any sort of root cause analysis?

In reviewing David's response to this question "[…] *we have basically just a big, large dataset. That dataset requires some filtering, some interpretation. Then interpretation of the data is where it becomes very difficult in terms of trying to prepare the report".* It is difficult to identify if he has heard or understood the question posed. It is possible that the neoliberal policies enacted at Waterside Council are acting as architectures of practice that are constraining David's CI practices and enabling rule-following where he is working as a CI operative.

"What would you say is your key challenge?"

Without any hesitation David responds: "[…] *if there are any best practices that we can adopt or take onboard until we get to our Utopia, so that we can manage this piece better."*

These example questions are evidence of the set members enacting ALS practices. Despite the questions being posed to him, ultimately David does not go on to develop a clear problem statement. In this example with David, ALS practices have not worked to suspend the neoliberal architectures that David is working amongst back in the workplace.

ALS step 3 – reflect back

David's immediate reflection

David commented that input from the set members was helpful. In a similar way to Tony, David reflected back to the group the usual approach to solving problems: *"we're so quick to get to that solution, and the pathway of least resistance".*

David identified input from the ALS has highlighted points of action for him *"just re-engage with some of those* [identified actions], *the stakeholders* [and clarify reporting dates].*"* David expresses concern that the organisation may not be in a position to provide him with the clarity he needs to complete the project "[…] *are all those pieces in harmony and are we all moving together as one?"*

In this reflection from David it is possible to identify his foci of enacting *technë*, that is the technical aspects of his role. In the enactment of *technë* the CI practitioner is working in ways that are representative of the CI operative; that is, the following of rules without questioning what the true and right thing is to be done to work in a moral and ethical way. The positioning of *technë* in the role of the CI practitioner is presented in Chapter 3. In his problem presentation and reflection to the group there is no evidence of David adopting critical reflection to gain a new understanding of the problem. The disposition of *phronësis* is notably absent from David's practice. Criticality of practices may be problematic to implement for some CI practitioners, such that their role is constrained to that of CI operative. This is in contrast to both Anne and Tony who were able to gain insight into their perceptions of the problems that opened up additional pathways of action for them. To adopt a critical approach aims to reach beyond existing ways of seeing and doing (Kemmis & Grootenboer 2008). In working collaboratively with others to formulate a problem definition statement presents the CI practitioner with the opportunity to clarify the problem, and therefore adopt approaches to resolution not previously considered. While critical reflection can offer much to the CI practitioner, for others, such as David, a critical reflective approach may generate tensions or contradictions that would not be possible to mobilise back at his workplace (Nicolini et al. (2004) due to the existing architectures of practice.

ALS steps 4, 5 and 6

Post set interview with David

Despite attempts over many weeks to contact David, I was not able to arrange a post set interview with him or conduct a triangulation interview. Is this the result of neoliberal policies acting to prefigure David's practices? It remains a possibility.

Summary of ALS 1 and 2

In these two ALS there were a total of three problem-presenters. Through the problem presentations it is possible to note that CI is currently driven by a top-down approach that has resulted in CI practitioners acting in the ways of the CI operative. The ALS has developed architectures of practice that enable the practice traditions of CI to be enacted. The recognised practice traditions of CI include the development of a clear problem statement, using data for decision making, working in solidarity with others, the use of problem-solving methods, action planning and engaging in critical reflection to springboard the next improvement cycle. Practices of problem definition, critical reflection and action planning were made possible. David's engagement with set practices was less so than the previous problem-presenters. By way of explanation, the limitations notable in David's problem definition statement and the actions he is prepared to undertake back in the workplace are predicated on David's understanding of what is possible for him to achieve back at the workplace with the prevailing architectures of practice. Kemmis, Bristol, et al. (2014) have recognised this phenomenon and note that humans will vary their performance in order to avoid barriers and untoward outcomes. Both Anne and Tony were able to gain clarity around their problem through the contributions of set members. For Anne she gained a very different perspective from

her original understanding of the problem. This was made possible through her engagement with critical reflection. The transformative nature of critical reflection enabled Anne to shift her disposition from rule-following, considered to be *technë*, to criticality, as she considers what is right and proper to do in the situation, she presented to set members. Through his problem presentation, Tony gained a new understanding of the problem and through the contributions of the set members a range of new ways of seeing and doing were made available to him. In adopting a critical disposition Tony was able to contemplate actions that enabled the overcoming of organisational inertia in relation to the adoption of Smart Cities technology. In reviewing David's enactment of set practices, the outcomes he was able to achieve were limited by the pre-existing neoliberal practices brought with him from his workplace that failed to be suspended by enacting ALS practices.

It is possible to identify Crop Swap emerging as an ecology of practices where the pre-existing practices are being intertwined with new set practices of problem definition, solidarity, critical reflection and action planning. This is indicative of the way practices are prefigured, not preformed, and their ability to adapt and change in accordance with the environment in which they find themselves. The foregrounding of the social relationality of practices notable in the solidarity that the set member was able to engender has enabled the problem-presenters to make the shifts in their practice dispositions. This was made possible by the care taken by set members in their asking of insightful questions that encouraged critical reflection to be enacted.

In the following section I introduce ALS run with groups of workers at CityView Council. A total of three problem-presenters shared their work-based problems with set members.

CityView Council ALS 1
Site description

I commence by describing the materiality of the site of this first ALS with CityView Council workers. The set was held in a meeting room in the main library of the Council. To enter the room, set members were required to enter the library building and climb two flights of stairs. The room was located on the left-hand side. It was a large, empty room with windows at the rear looking onto the street below. Upon entry the first thing that immediately took my attention was the emptiness of the room. As the set members entered the room, they immediately took action to set up tables that were being stored in a corner of the room. Chairs were stacked neatly in the opposite corner and were now being distributed around the tables by the set members. I was told that at the conclusion of each meeting the tables are packed away and chairs stacked neatly in a corner, the reason being that the room is used for a range of purposes by both workers and community members alike. The walls were devoid of decoration. There was a whiteboard on wheels standing towards the front of the room and a small garbage bin near the doorway. The tables were laid out in a rectangle with two to three workers sitting at each table. Both the managers sat at either end of the rectangle, inter-mixed with staff from both teams.

Familiarisation with set practices

This was the first ALS where the set members were able to familiarize themselves with set processes prior to the commencement of the set. Unlike the CI practitioners who received an introduction to the research method in a previous Crop Swap meeting, no such meeting was convened with these workers from CityView Council. The managers I was working in conjunction with felt it would take the workers away from their workplace for too long a time. This is further evidence as to how social-political arrangements shape the sayings, doings and relating of both workers and a university researcher at the research site. Groups of three workers were identified and each member of the triad undertook a role of either presenter, enabler or observer (McGill & Brockbank 2004). Guidelines for the triads were distributed amongst the participants, which were recognised as material-economic arrangements. This document contained exemplars of cultural-discursive arrangements ('I statements') and open and probing questions. These resources provided an introduction into the social-political and cultural-discursive arrangements of the ALS. The choice of a problem to be presented was up to each triad to decide upon. At the conclusion of each round, a short break was taken so the presenter and enabler could share their individual experiences and the observer could share their feedback on how the enabler assisted the presenter. Each member of a triad had the opportunity to act in all three roles. While the activity was taking place, I was able to circulate amongst the triads and provide some encouragement and feedback that the observer may not have covered. At the end of the activity all triads came together, and I commenced to debrief the activity using the cultural-discursive arrangements of ALS, for example: "in your role of questioner, what was the most challenging part of that role?". Participants were invited to share their reflections on what they gained from the activity and share their thoughts and feelings about it. The activity was considered successful from the overall feedback. Specifically, one participant said:

"I didn't really know what an action learning set was, but the activity helped me to understand it."

This comment serves to identify how the group were becoming 'stirred in' Kemmis et al. (2017) to ALS practices.

Next a list of ground rules was developed in much the same way as the previous ALS.

Kim was the first worker to present to the set. Kim's practice has been informed by her role as Library Customer Service Coordinator. In this role she is responsible for the operational customer service side of the library, inclusive of all the outreach programs and direct customer interactions in the library. Kim also manages seven staff.

Problem-presenter 1 - Kim

The problem Kim shared with the ALS was *"how to entice them* [a wider number of the community] *to participate in engagement* [with Council services.]*"*

Following are some examples of clarifying questions:

"*Do you have a certain number of non-users, have you got like a KPI or quota?*" Can success be defined?
Kim considers her response to the question: "*[…] the goal would be just an increase in usage in general. […] new members signing up would be a sign that we're reaching that market or we're changing our service to meet the needs of that market […]*"

"*Why are you doing this?*
Kim states: "*Always our objective is to provide the services that people want and develop our services to meet the needs of people in the community.*"

Can you describe what success would look like "*after you've done the community engagement work?*"

After a brief pause Kim said: "*[…] we would have a clearer idea of what we want to include in future. What our goals, for future branch opportunities and what we could change about our service here. […] that we could be clearer about the decisions we're making with the space and services that we're already doing in this building.*"

Kim's response to the written questions

At the conclusion of the questions, the set members were asked to record any further questions they may still have for Kim. During this time Kim was asked to reflect upon the questions and share her thoughts and plans for action. I also reminded her that there were some guiding questions to assist her in this act if she felt she needed some support.

In the following examples of further questions given to Kim it is possible to identify the focus on the material-economic arrangements:

"*What do you feel is holding you back?*"
Kim replies*: "I think we just need to get all the information that we have and maybe plan to start but I don't think that is* [energy from staff is] *quite there yet.*"

What resources do you need?
Kim cautiously answers: "*I guess there's internal-to-council resources that we still have open to us.*"

Kim's immediate reflection

Through reflection Kim has redefined the problem. "*[…] actually, my issue turns out to be the scale of this thing.*"

It is possible to see, through the process of questioning, that Kim has been able to develop a new problem definition statement. The asking of questions and act of reflection has enabled Kim to reconceptualise her initial thoughts around what she understood to be the problem. An analysis of her responses suggests that Kim's reflection is being prefigured by the prevailing material-economic architectures of practice pre-existing at CityView Council that have not been suspended by ALS practices.

Post set interview with Kim

Approximately two weeks after the set, Kim was contacted for a telephone interview.

In interview Kim expressed how the ALS enabled a clear problem definition statement to be developed that has now enabled her to feel *"confident in how to approach it and how we can manage it with our workload and stuff and other jobs that we have here."*

Kim went on to say that having the space to articulate a work-based problem was *"a good thing, particularly with that senior team [present in the ALS]."* This has led to a continued dialogue: *"[...] there's been quite a lot of activity and discussions since then"*. This has seen the implementation of a new practice being established at the site senior team meetings *"[... so we properly take time to talk about the big projects that we're working on and share]"*. Kim said she had found this useful, in that it: "*[...] helps to make you feel less alone with the problem."*

In reflecting upon engaging with others in developing a problem definition statement, Kim made the following acknowledgement: *"I think just a reminder that other people may have done things in the past that they can offer some insight about"*. The benefit to the worker in doing so *"helps to open up angles of it that you might not have considered."*

The reflection shared by Kim foregrounds the essential nature of developing a clear problem definition through engaging with others in a way that engenders solidarity amongst a disparate group of individuals. The benefit of adopting a critical disposition has proven itself to the extent that the practice has been adopted at a new practice site (senior team meetings). The installation of the problem definition practice has in itself acted as an architecture of practice. In interview, Kim was able to identify newly emergent 'doings' (such as sharing of information), 'sayings' (that include the discourse of project management) and introduced new ways of 'relating' to one another that Kim has recognised as reducing feelings of isolation when dealing with work-based problems.

Third party interview for Kim

Kim nominated Roberta, her line manager, as someone I had permission to interview regarding her post set actions. This interview took place over the telephone at a pre-arranged time.

Roberta shared that she had gained a lot of insight around Kim's problem and insights into difficulties Kim was expressing. This has enabled the opportunity for them both to sit down and discuss what Kim needed to help her to address the problem statement, and to *"recognize that project management training would be really great"*.

In being part of the ALS, Roberta shared her own reflections on set processes: *"I like that [ALS] sort of are teaching people to practice listening."* To adopt set practices more widely would *"enable a lot more depth, and understanding, and insight* [into work-based problems]."

Roberta's comments serve to foreground the essential nature of problem definition done in a group setting. This emergent practice of group problem-solving has enabled practices associated with solidarity to also emerge. Many of those present work in locations away from head office and often their work is undertaken individually. Therefore, the ability of ALS practices to foster social-relational practices that has resulted in the workers coming together in solidarity with the problem-presenter represents an opportunity to demolish organisational silos. In Chapter 3 the notion of organisational silos contributing to the unsustainability of CI is presented.

CityView Council ALS 2

Site description

Two additional members joined this second ALS. These new set members were not available to attend the previous set as they had been on annual leave. This set took place at the same site as the first one and the site practice of setting up the room played out with the same efficiency as it did in the previous set. The ground rules were reviewed and open for additions or retractions, however no changes were made.

Problem-presenter 2 – Yvette

The second problem-presenter was Yvette. Yvette's role is Children's and Youth's Librarian and she is a team leader who reports to Kim. Yvette has a team of five people working with her. Key areas of responsibility identified by Yvette include story time, events and activities through to the layout of the library area, the physical fittings, the collections, and what is included on the shelves and what is removed from these shelves. Overall, Yvette understands her role is to make the library a fun and safe space so that young people of all ages feel welcome.

Yvette commenced her problem presentation by sharing some background information. In her role at the main library, she has noticed an increase in the use of the quiet study spaces and rooms booked by private tutors. This has resulted in fewer desks being available for individual students and small groups to

undertake their own self-directed study. This problem has identified the rise of a new material-economic architecture and how it is working to enable and constrain library user practices. The noise generated by the growing number of tutors and their students who do not have a meeting room booked often results in noise levels that are distracting for other library users.

"I think it is just a case of having to talk around balancing everyone's needs and if there are any resolutions there."

Following are examples of questions put to Yvette from set members:

"What's the aim of this policy [internal library policy]? What will you do with it? What do you want it to do?"

Yvette replies: *"I don't know, it depends on what we decide. If it does actually have actions in the policy like we do need people to register, then that will be an outcome of it."*

In her response to the question, Yvette appears reticent to clearly state what she wants and is relying upon others to do this. This may be the normative approach to problem resolution in her workplace. If so, without a clearly defined problem any response will be unsustained. It is possible that cultural-discursive, social-political and material-economic architectures of practice are working to constrain Yvette from acting in an empowered way that would enable her to take ownership of the problem presented.

A set member asked if Yvette had consulted her team to solicit impacts of the current problem and any suggestions for improvement. *"Have you spoken to them about any ideas they have that might...?"* Yvette responds*: "it was a very quick session about surveying young people in the library and we did bring it up there. There was a moment that people were able to talk but we opened it up to say "Come to us after if you have any ideas around how we can..."*

In this quote from Yvette is possible to recognise how an ill-defined problem results in the waste of valuable resources, that is worker time that Imai (2012) recognises as *muda*.

Yvette's immediate reflection – sayings, doings, relatings

Yvette noted that in presenting to the ALS her problem required more definition*: "Things are just there but just not thought out, written down, and what things are actually problems that I do need to address."*

Yvette also spoke about there being a need to take time in clearly defining a problem: *"I need to dedicate more time to it and think about it."*

Yvette identified that she has not previously taken time to clearly define the problem and noted *"[… yes this step is helpful*". Yvette acknowledged how gaining input from her team could assist her in *"working through things".*

Yvette's reflection identifies the challenges that workers face in the NSW local government workplace with the focus on business as usual that can be attributed to the material-economic architectures that constrain problem definition statements. This same architecture of practice also works to constrain critical reflective practice through the recognition of making time available for workers to enact the practice. Furthermore, the act of problem-presentation to the set members has enabled Yvette to consider a new practice of collaboration in problem-solving by acknowledging that input from her team would be useful.

Yvette's post set reflection

Three weeks after attending the set, Yvette was contacted via telephone to follow up with her proposed actions.

Through her engagement with set practices, specifically with critical reflection, Yvette observed: *"So I learned something new about myself which is good."* Specifically, Yvette shared that she is now more aware of the need for diverse viewpoints and making space for individual work styles: *"I've learned how to create space for introverts in meetings and being okay with uncomfortable silences."* Yvette has shared how she is coming to practice differently in the way that Kemmis (2021) presents as learning. The opportunity for critical reflection has enabled Yvette to shift to a way of working that is more than *technë,* or the technical elements of her role, to one of moral disposition that has enabled her to reach the understanding for a need to include others (such as the introverts) into collective discussions. This shift is indicative of Yvette's move towards praxis.

Moreover, in engaging with others in the problem definition, Yvette commented: *"You're actually coming at it going, "I'm here. I'm owning this. I'm being really open about what I know, don't know, what my emotional instabilities are. [...]."* Yvette noted how this insight has been included in her work practices *"put it into this work context."* Additionally, there is a notable shift to the enactment of critical praxis by Yvette. "[…] *you don't wait for the person in charge to do it. Everyone's equally in charge. Or equally responsible [for problem definition and action planning]".* In summarising the outcome of her problem-presentation at the ALS, Yvette identified she has achieved a different understanding of her work-based problem that has resulted in *"practical change in my work".*

In her interview Yvette shared a number of ways in which participating in the ALS firstly enabled the development of a problem definition statement, and secondly provided a site for critical reflection that enabled Yvette to examine her own practice in a way that the existing architectures did not enable her to

do. These shifts in disposition are notable in the sayings, doings and new ways of relating that Yvette shared in this post set interview. The sustainability of these emerging practices is reliant upon the pre-existing architectures of practices being moved into the background, as ALS practices are translocated into new sites within the organisation.

Problem-Presenter 3 – Anneka

The third problem-presenter is Anneka. Anneka's practice has been informed by her in role in Community Development. She considers her role to be about sharing information with the community. Anneka's role is a specialist position where no one reports directly to her and she reports directly to Harriet. (Harriet was one of the two managers who participated in the ALS.)

Anneka volunteered to be the next problem-presenter. The problem she presented to the group refers to a product of NSW local government named Community Links Directory that contains contact details and services available to the community in the named NSW local government area.

Anneka is responsible for updating the information contained in The Community Links Directory. She finds it frustrating that the Directory is difficult for the community to locate on the NSW local government website. This has resulted in its low usage. The task of ensuring the information is up-to-date is time consuming and, coupled with its low numbers of access, Anneka has *"run out of energy and inspiration for promoting it. I've just run out of steam"*.

Following are examples of questions put to Yvette from set members:

"Why do we still need it?"
Anneka replies: *"It is useful for a mailing list [to be] used by Council. If we want to send information out or we're looking for feedback on arts and culture in the area when we've got a whole database there you can export it […]. And I can send out"*.

"Is it duplicating something that we already know?"
Anneka takes a moment to consider her response: *"[…] I can point them in that direction, but I can't actually supply them with a list… [there is] a restriction on collecting the information from people."*

"Are there things that this database does that can't be duplicated by any other service?"
Anneka clarifies: *"[…]is it most useful as a mailing list - something Council could use? Or is it useful to the public? […] they [simply] Google things.*

"Who are your key supporters in Council?
Anneka states emphatically: *"There aren't any big supporters"*.

Anneka's immediate reflection

Anneka commenced her reflection with admitting how she *"[…] hadn't realized how much I'd actually given up until I'd spoken to everybody about it."*

Anneka recognises that she requires assistance to increase the visibility of the Directory and market it to the community. *"I think it comes down to needing more support and more feedback, but also really making a push to reach out to more people within Council".*

In her responses back to the ALS members Anneka has engaged in critical reflection that has resulted in her sharing some insights that would not usually be shared in a workplace meeting. It is evident how ALS practices have suspended the pre-existing social-discursive and social-relational arrangements with others that are reflective of solidarity. The asking of insightful questions by set members demonstrated the care they were taking in supporting a colleague to complete a task that was proving to be challenging for her. Smith (2008) presents how a site that invites and nurtures critical reflection and connectedness assists in the development of the praxis stance. It is possible to identify these attributes in this ALS and how these have supported Anneka in her adoption of a critical disposition that is characterised by her willingness and readiness to act. This reconceptualisation of the actions of one's practice is recognised as praxis (Smith 2008).

Post set interview with Anneka

Approximately four weeks after the set, Anneka was contacted by the researcher for a telephone interview. A pre-arranged time was scheduled for the interview which took place during work hours and took place on Anneka's mobile telephone outside of the office.

Anneka shared how she found the experience to be confronting, and at the same time was able to realize her own role in the problem: **"**it made me realize I've put the issue in the too hard basket for too long*".* While she considered the experience to be confronting *"like you're actually kind of exposing something"* Anneka also noted *"I did feel that everybody was supportive."*

In her summation of her experience of the set, Anneka found the problem definition to be very useful: *"[…] trying to look at the issue from different angle".* Presenting a problem to set requires honesty: *"I think I possibly learnt that I have possibly been procrastinating a little bit."*
In following up on actions Anneka shared those that she had taken in order to resolve the problem: *"[…] I'm right in the middle of updating the database at the moment, I also realize I know that I need more assistance and more feedback and energy and time to complete the job."* Through participating in the ALS, Anneka has been empowered to take positive steps in the resolution of her work-based problem. She has demonstrated a deeper understanding of the problem and what is required of her to resolve it. These insights were not available to Anneka prior to her engagement with the ALS.

This was the last contact I had with Anneka and my engagement with CityView Council. It is possible to conceive that material-economic architectures of practice at the site were working to enable the ALS members to continue with business as usual and constrain further interaction with the research.

Following is an interview I undertook with Harriet. Harriet was one of the two managers who participated in the ALS.

Post set interview with Harriet

In interview with Harriett she noted how the ALS gave permission to workers to explore work-based problems: *"I just think the whole focus on a group taking time to actually examine an issue. You've been given permission to do that."* This is not a standard work practice at CityView. *"Even team meetings don't do it, because they've got lots of items on agendas."* Harriet shared that the pursuit of understanding problems is a worthwhile action: "*I think that's valuable because I don't know in organizations you really get that."*

In considering ALS practices, Harriett identified the following positive elements to be *"active and engaging immediately and applicable immediately; [the ALS] awards value to the team process, it doesn't have to be an expert that's come in and said, now this is what you do."*

Harriett was asked if ALS practices have been relocated to new sites at CityView. Firsthand experience in set practices has afforded an opportunity for Harriett to restructure her team meetings: *"[…]to get better outcomes, I'm definitely going to use this tool."*

The insights Harriet was able to share signify the emergence of a new practice site (team meetings) and the potentiality for the ongoing development of an ecology of practice. Kemmis et al. (2012) contend that practices coexist and are connected to other practices a way that is similar to differing species in an ecology. The possibility that practices may be understood as connected, living things is presented in Chapter 2. In interview with Harriett she shared how set practices are being relocated to team meetings. The relocation of the set practice of problem-presenting to a new site in Harriett's team meeting is an example of the ability for practices to shift and change as they move to a new site developing into new practices. This establishes both problem definition statements and critical reflection as new site practices. Both of these practices offer workers the opportunity to reframe the issue they have presented and consider a wider number of approaches for the amelioration of it, potentially some that had not previously been considered. The ability of set practices of problem definition and critical reflection to be translocated results from the team members, most of whom attended the ALS, bringing 'how to go on' into these two practices. The emergence of an ecology of practice works to remove organisational barriers and facilitates a new understanding of the interconnectedness of practices as these move across the organisation, resulting in the breaking down of organisation silos.

Summary of ALS at CityView Council

CityView does not have a CI framework or methodology in place and thus no designated CI practitioners. The ALS conducted at CityView included workers, team leaders and two line managers. In summarising the ALS outcomes the evidence gathered presents how the opportunity to bring a work-based problem to share has enabled the refinement, reconceptualisation or confirmation of the problem that has led to a clear definition of the problem to be articulated. With a defined problem statement the problem-presenter received contributions from the set members. Working in this caring and collegial way was not a pre-existing site practice. I believe this is one of the significant outcomes of the work with CityView workers. The development of a new site has afforded workers to relate to one another in new ways. This had a positive impact on the set members that has served to remove organisation silos. At the conclusion of the contributions from set members the problem-presenter was afforded the opportunity to reflect upon these contributions. All the problem-presenters engaged in critical reflection notable by the shift in their disposition of enacting the technical elements of their role (that Kemmis and Grootenboer (2008) recognise as *technë* to a critical disposition of praxis. The outcomes of the ALS have worked to influence the line managers present. Having had the opportunity to interview one of them, Harriet shared that the practices of problem presentation and receiving contributions from others has been translocated to a new site of her team meeting. Kemmis, Wilkinson, et al. (2014) recognise the ability of the sayings, doings and relatings of one practice feeding another practice that highlights the interdependencies among practices in ways that are similar to ecological systems. The notion of ecologies of practices is presented in Chapter 2, where these were described to act as a 'motor' for other practices where one practice has another practice nested within. By way of example, in interview with Harriet she shared that the practice of problem definition from the ALS is now feeding the practice of project updates of team meetings. Additionally, it is possible to identify that the sayings, doings and relatings of ALS have resurfaced in the sayings, doings and relatings of team meetings and the workers who participate in those meetings, and again the potential for the sayings, doings and relatings of the workers who attend these team meetings then becoming the sayings, doings and relatings of their team members, and so on, in an interconnected web of practices. The adoption of set practices into team meeting practices indicates the establishment of an ecology of practice at CityView Council. This observation serves to establish that work-based problem-solving is bound in a web of relationships in an ecology of practice in which practices of problem definition, asking insightful questions, critical reflection and action planning mutually support one another in a complementary manner. It is the contention of the researcher that an emergent ecology of practice works towards the removal of organisational silos that literature has recognised facilitates a continuous flow of improvement.

Summary

In this chapter I have presented empirical data gathered through ALS, interviews using semi-structured questions, field notes and observations from each of the sites. One group of ALS were undertaken with CI practitioners and another with NSW local government workers. In identifying themselves as CI

practitioners, members of Crop Swap who participated in the ALS were not always enacting the practice traditions of CI. They were undertaking their role in a rule-following manner that is recognised as resulting from the social-political architectures of practice that are present within NSW local government. Renaming this group as CI operatives more accurately reflects the nature of their work practices. This has implications to the sustainability of CI and contributes to the silo mentality prevailing in NSW local government.

The outcomes of both groups were similar insofar as the enactment of set practices is concerned. This resulted in the formulation of problem definition statements, engagement with others in caring and thoughtful ways through the asking of insightful questions, problem-presenters enacting critical reflection and actions planned for problem amelioration. It is possible to see these actions mirror those of Deming's PDSA cycle. In an organisation such as CityView Council that does not espouse any CI framework or methods it is possible to see CI practices being enacted. This is in contrast to the NSW local governments represented by Crop Swap that espouse commitment to a range of frameworks and methods, for example, ABEF and service reviews, where there is no evidence of the enactment of problem definition statements, critical reflection and action planning prior to the ALS being run. The ALS developed into a site that enabled these practices to surface. The emergence of an ecology of practice was identified at CityView through the translocation of set practices to a new site of team meetings.

The introduction of ALS to two groups has had a positive impact on both CI practitioners and workers. These include the provision of a space to clearly define work-based problems and critically reflect. The consequence of these two practices has enabled the shift in personal disposition from *technë* to praxis. Previously in this chapter I have noted the positive relationship of praxis and the sustainability of practices. This is noteworthy, as sustainable CI practices have not been achievable in NSW local government previously. Even if not labelled as CI, the sustainability of set practices is made possible through workers shifting to a critical disposition of praxis. The architectures of practices at each site of the ALS have enabled practices of problem definition, insightful questioning, critical reflection and action planning. These same architectures constrained advice giving, disengagement and surface level thinking acts that are evident within NSW local government.

The following chapter discusses the outcomes of the research data and presents the implications of the research findings.

Chapter 7 - Discussion

The data for this chapter was sourced from four ALS, over 30 hours of interviews with the ALS participants and one practitioner focus group. This chapter presents the culmination of that body of work distilled to the research findings. Each section of this chapter will discuss one of the research questions. There will be a summary section after each research question and the conclusions that have emerged will be presented in Chapter 7.

RQ1: What are the practice architectures in local government that impact CI?

This initial research question looks to identify what practice architectures of CI exist in NSW local government. In Chapter 2 a definition of architectures of practice was presented. The definition presented recognizes practice architectures as the particular nexus of arrangements that make certain practices possible in specific sites. Practice architectures make some practices possible, while making other practices less possible and, overall, less likely to emerge at a particular site at particular times. In this chapter, a site was defined as a type of context in which the practice takes place (Schatzki 2005). This suggests that context and practice are inseparable. Both Schatzki and Kemmis recognise the constitutive relationship between the practice and a site. The lens of TPA enables the examination of the current enactment of CI to consider how practice architectures (Kemmis 2010) - notable as material- economic, social-political and cultural-discursive arrangements - shape *situated* sayings, doings and relatings into a particular kind of practice. Using TPA to enquire into the ways in which CI is enacted in NSW local government has offered new ways of understanding how existing neoliberal ideology and resultant policies driven by NSW State government and the Australian Federal government more broadly have created certain practice architectures which in turn play a role in enabling or constraining CI in the local government organisations studied. Neoliberal policies are acting as a practice architecture enabling some CI practices while constraining others. The pre-existing architectures of practice identified which have enabled a decontextualized approach to CI practices have shown limited improvements, both in terms of achieving any significant savings and/or process efficiencies to be delivered or sustained by local government.

In relation to research question one (RQ1), in the following sections I draw on findings presented in Chapter 5 that establish service reviews as an enacted practice working to prefigure the adoption of a hybrid approach to CI, and service reviews being adopted as a kind of CI that has been shown to influence the enacted practices throughout NSW local government. It is observable that the top-down approach to management drives a short-term myopic focus which sees workers delivering business as usual. In Chapter 5 of this thesis, evidence of the reliance upon management consultants to implement the CI framework of service reviews is presented. The research findings have revealed the limiting nature

of decontextualised CI, specifically in the possibilities of CI practices that are possible to be enacted.

Managerial myopia working to enable and constrain management practices

Managerial myopia as an architecture of practice is proving to prefigure management practices in local government. In Chapter 5, managerial myopia is reflective of a narrow view of "temporal choices, organisational capabilities, environmental forces and strategies external to the firm" (Ridge et al. 2014, p. 604). Managerial myopia mediates a narrow stance that tends to conform to pre-existing industry standards Ridge et al. (2014). This stance is far reaching across NSW local government and goes some way to accounting for the sameness in CI practices in NSW. For example, one group of management consultants have introduced a specific service reviews framework across multiple NSW government sites. Table 1, Chapter 5 shows local governments B, C, E, F, I and J all recording the adoption of the one service review CI framework. At the time of data collection, service reviews were identified as the most widely adopted CI framework. Managerial myopia is limiting to CI actions across local government. It does so by acting as an architecture of practice. This is exemplified in the following quote from a CI practitioner:

"The mandate in local government, I don't truly feel that it's actually to improve anything."

This strong statement clearly casts a shadow on the way management practices are being enacted. In the following section I present evidence of ways in which this architecture is constraining both the practices of the CI practitioner and workers.

Managerial myopia is problematic for CI as the decisions being made by top management directly influence the sayings, doings and relatings of CI practices as these are enacted across the organisation, or indeed, fail to be enacted. The prevailing myopic view has worked to constrain the recognition of future opportunities and how these opportunities offer an alternative future state for NSW local government (Lant et al. 1992; Ridge et al. 2014). It is possible to determine that managerial myopia as an architecture of practice simply enables workers to focus on the delivery of business as usual.

In discussion with CI practitioners, CI was positioned as a top-down approach. Continuous improvement is driven in a top-down manner across local government. The implementation of an employee suggestions scheme is a unique approach to CI in NSW local government that offers the opportunity to embed CI into daily work practices by empowering workers. However, in providing details of how such a scheme would operate, Practitioner A advised of the inclusion of a management board to assess the viability of worker suggestions. This decision to include a management board seeks to control the initiatives and activities of workers (Lingard et al. 2003; Wilkinson et al. 2010). An opportunity to empower workers is missed and as such the direct control exerted by top management may result in a narrow focus of CI projects to those that look to achieve neoliberalist targets. In what other ways are top management practices acting as an architecture of practice? In the following section I present how, in

using management consultants to implement a CI framework, the codified information they offer limits enacted CI practices.

The use of management consultants to implement CI

The use of external management consultants inside local government is a familiar management practice to workers and CI practitioners. The use of management consultants to implement CI frameworks is a long-standing management practice inside of local government. Data from Chapter 5 has identified how in their use of codified and commodified information management consultants are limiting CI practices.

The use of management consultants that 'productify' CI knowledge and a suite of 'practices' that is then sold on to a ready market has serious consequences for organisational practices (Heusinkveld & Visscher 2012). The codified and commodified nature of CI as a product is recognised as being standardized and deployed to the target market. Heusinkveld and Visscher (2012) contend such approaches do not take into consideration the complexities that can arise from the translating of these codified, abstract concepts into local practices. In reconceptualizing the above consideration through the lens of TPA it is possible to identify how commodified knowledge works as an architecture of practice, in that it works to limit the practices of workers and enable only those practices that were introduced by the consultants. Scholars (see for example Benders et al. 1998; Cerruti et al. 2019; Heusinkveld and Benders 2005) have observed that management consultants understand their role as being the transfer of commodified knowledge into an organisation and NSW local government readily buy-in to their 'expertise', as exemplified in the following quote:

"We always bring in a UTS associate to do our training with us, because we retrain every 12 to 18 months, we run a three-day training course in the UTS methodology [...]"

In the engagement of management consultants, top management in NSW local government are deploying CI in a decontextualised way that has enabled it to be annexed from day-to-day operations (as identified in the above quote) that has given rise to the hybrid approach. The consequences of management consultants implementing CI has resulted in isolating CI rather than embedding it.

"I think our group is very motivated by improving, and we all want to see improvement. There are definitely times it causes a huge amount of frustration [for us]" that others in the organisation are *"perfectly happy with it just going along the way it is."*

Exploring this illustrative quote of the CI practitioner above and analysing it through a lens of TPA enables the surfacing of how an architecture of practice makes possible both desired and unintended practices. CI practitioners have expressed their frustration with CI being enacted in some parts of the organisation, and others where business as usual practices are enacted in isolation to improvement. In so doing this approach has seen the rise of parallel architectures of practice where, while one architecture of

practice enables the practices of CI, it may also limit the possibility of how far reaching these improvements can be. The second architecture works to enable business as usual and constrain the enactment of CI. This finding supports Heusinkveld and Visscher's (2012) contention pertaining to the use of external management consultants and how the information offered to organisations is often decontextualised, and the resultant complexities are not taken into consideration by top management when making the decision to use them.

The two parallel architectures identified work to reinforce organisational silo thinking. Firstly, I will consider the practices of the CI practitioner and how these are being influenced by the pre-existing conditions. Process mapping is a readily identifiable improvement process that is facilitated or undertaken by a CI practitioner as one step in the overall improvement journey. However, the findings indicated that this is the most enacted practice by CI practitioners that is undertaken without reference to other CI practices.

"Their KPI, which is slightly scary, is to map three processes, which may have caused the situation we're in now where people are process mapping for process mapping's sake."

"I don't even think they're aware of continuous improvement. If they have any understanding, it is literally just process mapping of process as it is."

Workers spend a short time with the CI practitioner to meet a KPI to have processes documented and then continue with delivering business as usual. Conducting process mapping in this way removes the aim or project of the practice and serves to remove the telos of the practice. It then ceases to be recognised as a 'practice' Schatzki et al. (2001) when using a theorised understanding of the term. This being the case, the action to document a process becomes an act to produce 'something'. It is undertaken without a moment of reflection. To undertake a process where it is difficult to find the telos reconceptualises the understanding of the term 'CI practitioner' to that of CI operative when using the lens of TPA. Such is the situation that the work of the CI practitioner is very difficult to detect in the tasks undertaken by CI practitioners. The consequences of such actions dismiss the practice traditions that have sustained numerous industries across the globe for the past 100 years or more, it devalues the craft of the CI practitioner that has been shaped by these practice traditions, it acts to isolate the CI practitioner and, in so doing, disempowers them and devalues their work. Learning how to go on in the practices of CI may no longer be possible as the sayings, doings and relatings of the practice are lost. The establishment of the parallel architectures has arisen through managerial myopia with its short-term business as the usual focus.

The motivation of NSW local government to adopt service reviews is centered around the centralised monitoring of key performance outcomes documented in IP&R reports to the Office of Local Government (Johnsson et al. 2021). Reporting of this type places the emphasis on "privileging economic outcomes and inculcating an assessment culture" Johnsson et al. (2021, p. 206) rather than on a site for

generating continuous improvement. The reality of the above is being played out through the separation of CI and business as usual within NSW local government. The competing practice architectures that enable business as usual and constrain embedded CI practices are operating in ways that establish organisational silos. Chapter 5 of this thesis surfaced the silo thinking operating in NSW local government and identified a group of workers and infrastructure dedicated to the development of collating data for reporting to the Office of NSW Local Government. Despite the synergies associated with data collection and improvement, these two practices are made separate by the existing architectures of practice in much the same ways described in the busy road analogy provided earlier in this chapter. Though both have a relationship to CI there exists a disconnect between them. Separating improvement from the day-to-day work disables the capacity and willingness of workers to think and act critically. This leads to a loss of the specific CI practice traditions of problem definition statements, problem-solving methods, reflection and action planning. Kemmis and Smith (2008b) contend organisation silos act in ways similar to that of practice architectures that have their own sayings, doings and relatings that work to enable and constrain practices. Organisation silos are characterised by the practice of managerial myopia that when enacted limits how much improvement is actually achieved and what areas are improved. The following quote from a CI practitioner exemplifies the myopic architectures of practices and how these work to constrain promotional opportunities and enable traditional thinking to prevail inside NSW local government:

"*We had a conversation with our general manager about the kinds of people that get promoted, and our general manager straight out said, if you're a maverick, a leader who challenges traditional thinking, there's a glass ceiling. You'll be lucky if you get to senior manager level, but you'll never be a director or a general manager.*"

In sum, the pre-existing architectures of practice explored in this research are influencing the overall sustainability of CI in NSW local government. This is considered to have commenced with the manner in which neoliberal policy is working to enable and constrain management practices inside local government. The management practices being enacted are working in ways representative of an architecture of practice. The influence of such an architecture of practice on the sayings, doings and relatings of CI has limited the practices of workers and CI practitioners. Such is the limiting ability of these practice architectures that a description of 'CI operative' best describes the actions undertaken by those given the responsibility of facilitating CI within NSW local government. Of note in these actions is *an absence* of problem definition statements, problem-solving methods, action planning and critical reflection, and this is explored in answer to RQ2. This research considers a myopic view by top management in NSW local government is enabled by the focus on delivering business as usual. This is limiting to CI practices, the design of these practices and the way these are made possible. Specifically, this research is able to identify the rise of service review actions in NSW local government that are being discussed in terms of a further quality framework. Despite the widespread use of service reviews, the longed-for budget savings have yet to materialize.

RQ2:How do these architectures of practice enable and constrain CI being enacted?

Architectures of practice influence the way a practice is made possible. In response to RQ2 I present how the architectures of practice are working to enable and constrain practices of CI. The following section analyses the way in which the influence of neoliberal policy enactment on CI practices, silo thinking and individualistic approaches have together generated practices often lacking a critical stance and limit sustainable, ongoing flow of improvement.

Neoliberal policy enactment identified in management practices

The limiting of practices

Neoliberal downward pressure by governments is working to enable certain management practices in NSW local government that is driving the delivery of business as usual. The unintended consequence of the approach has seen CI practices repositioned outside the responsibility of workers as they undertake their role. In the following section I analyse the outcomes of this situation.

In Chapter 2 the relationship between cultural-discursive, material-economic, and social-political practice architectures as discussed by Kemmis et al. (2012) was presented, and I considered how these together work to shape the content of a practice where it is possible to observe the practice arrangements of sayings, doings and relatings and analyse how these come together in a practice. How have the prevailing architectures of practice mediated CI practitioner practices? It is the contention of this research that the work of the CI practitioner is being constrained in such ways that accompanying sayings, doings and relatings have little bearing on the recognised practice traditions of CI. Architectures of practice work to constrain the practice of the CI practitioner that is identified by the absence of social-political elements as the organisation foregrounds the work of the individual over that which is socially orchestrated. The cultural-discursive dimension enables the decontextualised application of a limited number of CI tools. The material-economic dimension exemplified in the use of management consultants, for example, has been shown to isolate the CI practitioner in limiting their individual practice to those few tools that management consultants have selected for use and what practices are made possible inside the organisation, such as process mapping. These limiting factors are referred to in the following quote from a CI practitioner:

"My team will process-map all of our processes over the next 12 months."

The reduction of CI practices to enacting activities such as process mapping by both the CI practitioner and workers alike offers little opportunity to learn and act in a critical way. Process mapping can be a powerful tool to identify process inefficiencies for example however, when it is reduced to recording a paper trail as it is often undertaken in local government, the usefulness of these process maps is

questionable. The consequence of this application of process mapping is made clear in the absence of problem definition statements, problem-solving methods, reflection and action. For workers, opportunities for learning are restricted, as existing business as usual practices are further embedded ever more deeply in the sayings, doings and relatings as they go about their roles. Without a critical stance being present in the practice of the CI practitioner, their work is repositioned as reflective of the operative. The role of the 'operative' could best be described as the worker that follows the rules without questioning the purpose of the work, the way the work is to be carried out or, importantly, without questioning the morals and ethics of undertaking such work through critical reflection. A return to a critical disposition supports the growth and sustainability CI. Kemmis and Grootenboer (2008) recognise that engaging in critical reflection is the path to the development of praxis. Praxis is critical to the work of the CI practitioner as it necessitates the answering of what is right and true to do in a particular situation, and have we been effective and successful? To answer these questions of the CI practitioners marks a return to the practice traditions of CI as exemplified in Deming's PDCA model of improvement.

An absence of socially enacted practices

NSW local government has positioned business as usual and CI as separate practices. This has seen the rise of two parallel architectures of practices. This decoupling of improvement from work practices is evidenced in the practices operating in each of these two architectures of practices. As outlined above, often CI practice consists solely of process mapping. It is the contention of the researcher that this disconnect has served to further contribute to the unsustainability of CI as enacted in NSW local government. Restricting worker practices to business-as-usual moves NSW local government further from the goal of achieving efficient processes that meet customer needs without increased expenditure.

When workers are socially and relationally isolated from other workers, they operate in ways that limit opportunities to engage in CI as it is conceived as a socially enacted practice. By way of example, CityView council has a number of workers located 'out in the community'. The research findings have identified how problem-solving practices are constrained when workers are isolated. These workers have little opportunity to access other workers and therefore the options to engage in group problem-solving methods are negated. Without an organisational pre-existing problem-solving framework, the possibility for the development of a problem definition statement is challenging. Isolating these workers prefigures an individualistic approach to work that enables a continued focus on business as usual. This quote from one of the isolated workers indicates a need for the inclusion of problem definition practices:

"I work on my own and, so from my perspective, I really enjoy or appreciate input from others, and other people sharing ideas."

The third section of Chapter 3 focused on the relationship of CI and learning where a differing conceptualisation of learning was introduced to the reader. This further conceptualisation of learning has been introduced to the practice literature by Kemmis and his collaborators. It is the contention of Kemmis

(2021) that learning is understood as being stirred into new practices that sees the worker go on in the new practice. Research findings clearly demonstrate workers are constrained to enact business-as-usual and CI practitioners to enact a narrow number of tools. Such limits to the practices of both groups are reflective of an organisational silo mentality that works to curb change. Without change, opportunities for learning are checked. Learning as a socially enacted practice is absent from the practices of both CI practitioner and worker. A focus on delivering business as usual engenders an individualistic approach that works to limit learning when determined as the ability of the worker to go on in the new practice. The following quotes reflect the power of engaging in social-relational practices that foreground groups coming together in solidarity:

"...active and engaging immediately and applicable immediately; [the ALS] awards value to the team process, it doesn't have to be an expert that's come in and said, now this is what you do."

Service reviews embed organisation silo thinking

In Chapters 3 and 5, the use of service reviews was problematised for a lack of whole of organisation approach that sees these undertaken in isolation by groups of workers outside of the business unit delivering the service. In reconceptualizing service reviews through the lens of TPA it is possible to identify them as a further architectures of practice that is enabling those internal practices that limit the reach of CI inside the organisation by 'outsourcing' CI to a group outside of the business unit. Adopting this approach works to embed organisational silo thinking.

The approach adopted by local government to use service reviews is working to isolate not only workers from an opportunity to improve their own work but the CI practitioner, too. The service review documentation makes the following recommendation Hunting et al. (2014, p. 2):

"Even without a formal improvement framework, NSW local governments can still document how services are delivered as a starting point to determining what could be done differently."

The positioning of the role of CI as something separate to the service review serves to further narrow the reach of a CI practitioner. This goes some way to elucidating why processing mapping is the most widely enacted practice of the CI practitioner. The following quote serves to foreground the limited scope of the CI practitioner role:

"I'm responsible for the [process mapping] system that we use for business process management."

In sum, the response to RQ2 has recognized the influence of neoliberal policy and the way it is enacted in NSW local government, most commonly through management practices that foreground business-as-usual and also individualism. CI has been decoupled from day-to-day work practices and this has seen a decline in the practice traditions of CI. The work of the practitioner has come to resemble that of the CI operative, as these practice traditions struggle to assert themselves in the prevailing architectures of

practice.

RQ3:How can the use of reflective practice influence the flow of CI practices?

In answer to the previous two research questions, I have described the current landscape that has positioned CI practices being constrained in NSW local government. The evidence to support this assertion can be found in the limited number of CI practices being enacted, the separation of CI from worker day-to-day practices, the adoption of service reviews that view CI as a tool, and the narrowing of the CI practitioner role to consist of few decontextualised practices. The significant outcome resultant from these constraints is the unsustainability of any one CI framework. When the benefits of one framework fail to be maintained, another framework is introduced. This management practice of introducing one framework after another serves to surface cynicism and mistrust within an organisation. I commenced this research journey to identify and introduce an approach that would enable the practice traditions of CI to be returned and if it were possible to introduce these practices into a site that had no preconceived experience of CI frameworks.

ALS working as a practice site

Chapter 4 of this thesis introduced the work of Revans (1982) and ALS. Action learning sets are recognised as a social-relational approach to problem-solving that consist of a continuous process of reflection and action where set members work on real work-based problems with an intention of "getting things done" (Brockbank & McGill 2003, p. 11). This approach to instituting ALS enabled social-relational practices to be returned to problem-solving, the establishment of a critical stance through critical reflection and action planning. These steps are notable in Deming's PDCA cycle Chiarini (2011); Deming (1986) and also Imai's Kaizen approach (Carmerud et al. 2018; Imai 1986). In Chapter 3 of this thesis these identified similarities between ALS and Kaizen were recognised as both foregrounding the development of problem definition statements and, a commitment to solving the problem all undertaken in solidarity with others. This contention then makes it possible to undertake CI without a direct reference to a specific framework. The constancy of the introduction of one CI framework after another within local government is indicative of the organisational architectures of practice that constrain many of the practice traditions of CI taking hold.

Chapter 2 of this thesis introduced the theoretical frame of TPA and the ontological positioning of the practice site developed by Schatzki (2002). Site ontology recognises practice as the central feature of social life. In Chapter 4 I discuss how a constructivist approach recognises learning as actively and socially constructed. Furthermore, Adams (2006a) situates knowledge as being locally constructed, situated and represented by embodied workers that interact with material objects (Lloyd 2010). Both the TPA and social constructivism share an ontological recognition of learning as social construction, and it

is also possible to distinguish this in ALS. In reconceptualising ALS through the viewpoint of TPA it is possible to identify each of the ALS as a practice site that made possible the enactment of problem definition, problem-solving, critical reflection and action planning more closely aligned with the traditions of CI as espoused by seminal authors. This was realised through the language, web of relationships, power and belonging provided at the site that offered the substance for, and made possible, the relatings of the practice (Kemmis et al. 2016). Some ALS members did express their trepidation at such a public pronouncement of a work-based problem:

"[...] showing how someone might have a scenario that they are trying to deal with and that everybody else could input without, putting more on their plate."

"[...] it has been useful [presenting a work-based problem to the set members] *because it did clarify one main thing for me about what problem I was having".*

The introduction of ALS practices has resulted in a practice site that has afforded the conditions necessary for CI practices to emerge.

Critical reflective practice

The cyclic nature of Deming's PDCA cycle unmistakably establishes the position of critical reflection in the enactment of CI where upon reaching the 'check' phase workers are invoking critical reflection to then engage in the fourth step of 'act'. Critical reflection is the engine of CI. Without it the cycle stops and so too does improvement. This assertion extends to all other quality frameworks. Without a critical disposition, workers maintain a business-as-usual approach that the research findings unearthed. The consequence of embedding business as usual has resulted in the long-term issues of efficiency and costs remaining for NSW local government.

It is the contention of the researcher that critical reflection and the associated critical stance is an approach that offers a pathway to sustaining the practice traditions of CI. In Chapter 2 the concept of praxis was introduced as a theorized understanding of practice. In recalling one of the research findings, critical reflection and the corresponding critical disposition made apparent to the set members a way forward, a movement out of the morass, to clearing a path to problem resolution and, critically important, the commitment of action to a group of colleagues and peers, as exemplified in the following quote:

"The most important thing, is keep talking with others. Keep being honest. None of this [top management perceptions of CI practices] *will change unless I have some really honest conversations with people."*

Praxis as a thoughtful moral mode of action has shown to be developed through solidarity identifiable in the sayings, doing and relatings within the ALS. For most of those participating in this research ALS practices made it possible to shift their individual practice to include an inclination to criticality.

Therefore, set practices make possible a shift to critical praxis. Why is this important to the sustainability of CI? A move to critical praxis permeates thoughtful, moral and ethical qualities Russell and Grootenboer (2008) as the set members work to better understand their actions and their commitment to their best, as acknowledged in the following quote:

"I have to say I did find it quite confronting because it was sort of...it made me realize I've put the issue in the too hard basket for too long."

Praxis guides what is true and right to do, which positions it as doing more than 'going through the motions'. If workers in NSW local government engage with critical praxis, there is a greater likelihood that CI can be sustained. However, for this to be realised, the pre-existing conditions of practice must be changed to support a critical stance. The application of ALS to the research question of whether CI can be enacted differently in NSW local government has decisively acknowledged it is possible. Continuous improvement does not require a framework, reliance upon management consultants or the use of scarce budget resources. It does not require a label identifying it as anything other than the adoption of a critical disposition enacted through critical reflection.

In summing up, in response to Research Question 3 the use of ALS to replace a more recognizable CI framework has been able to deliver more than simply a methodology to problem-solving. ALS have provided evidence that these afford the conditions that engender solidarity, and demonstrated it is possible for those who engage with it to be able to engage with the practice traditions of CI. This was able to be done at no cost to the NSW local governments that participated in the research, but, importantly, the practices once understood can easily be introduced into other parts of the organisation, thus avoiding the expenditure of scarce budget funds.

I have presented that for CI to be sustainable there must be a return to the practice traditions notable in the works of Deming, Juran, Crosby and Imai. Nonetheless, for CI to be sustained more is required from top management. Top management must empower workers to practice these in an ongoing manner. Caution must be taken to avoid the routinisation of these practice traditions as it has the potential to constrain the practice through feelings of cynicism.

The data has demonstrated that when workers are afforded the time to engage with ALS practices there is an engagement with social relation practices that are shown to give rise to solidarity. Solidarity has proven useful in the solving of work-based problems as it affords the opportunity to explore new perspectives. The introduction of set practices has seen the emergence of CI practice traditions where previously there were no problem definition statements or problem-solving, action planning or reflection. The set practices made these possible at the site. In engaging in critical reflection the research participants shifted towards a critical stance and praxis. Having the worker engaging in praxis questioning 'what is best to do?' alters the focus from business-as-usual to ongoing cycles of improvement embedding the CI traditions into worker practices.

This concludes the response to the research questions. The following conclusion chapter summarises each of the preceding chapters, articulates the research contributions and identifies future research opportunities.

Chapter 8 - Conclusion

The commencement of this research was sparked by an uneasiness with the way continuous improvement practices inside NSW local government were lacking evidence of those practice traditions developed by the early quality theorists of Deming, Juran, Crosby and Imai. In particular it is the loss of the practice of problem definition and methods of problem-solving that is most concerning. Hence this research has adopted a novel approach to critiquing the conditions of CI practice operating within NSW local government using the Theory of Practice Architectures (TPA). This lens has afforded the opportunity to critique the current approach to Continuous Improvement (CI) literature and specifically the way it is discussed in relation to NSW local government in a way that constitutes an academic contribution to this research. This research has identified the practices of CI in operation in NSW local government; the architectures that work to enable and constrain these practices and the emergence of other practices. Lastly this research has considered how it is possible to enact CI in ways that have not previously been introduced in NSW local government and that reflect CI practice traditions through participating in action learning sets.

In the next section I will present the research questions.

Research questions

RQ1   What are the practice architectures in local government that impact CI?

RQ2   How do these enable and constrain CI being enacted?

RQ3   How can the use of reflective practice influence ongoing CI practices?

This research has used multiple Action Learning Sets (ALS), interviews and one focus group to surface the currently enacted practices of CI and identify the architectures of practice that prefigure these practices and apply the TPA framework to reconceptualise CI. The following sections will revisit the arguments presented in this research and will show how the research objective has been fulfilled.

Revisiting the research

Chapter 2 *presented* the philosophical and theoretical foundations of the research which was grounded in the theory of practice architectures that concomitantly links theory *and* practice. This theoretical lens refers to the cultural-discursive, material-economic and social-political architectures that condition worker and CI practitioner sayings, doings and relatings among those at a site. Practices are the product of other practices that are shaped and conditioned by circumstances, history and prior experience that see the actions of the work/CI practitioner prefigured, not predetermined (Kemmis & Grootenboer 2008).

This research has brought together the literatures of CI and TPA. In so doing this work repositions the dominant ontologies of individualism and positivism found in the CI literature. Through adopting such an approach, new perspectives have emerged through the reinterpretation of CI.

Chapter 3 *introduced* continuous improvement, continuous improvement in NSW local government and continuous improvement and learning. Here I charted the history of CI and the way it has influenced work methods. I focused specifically on the work of the early quality theorists - Deming, Juran, Crosby and Imai - and provided a summary that represents the practice traditions of CI. Reconceptualizing CI through the lens of TPA reveals that in NSW local government where CI is recognised as being enacted through the use of a limited number of tools, the teleo-affectiveness of the practice is removed. This state of play is important because it has seen the rise of CI activities that are not practices, as these actions lack the sayings, doings and relatings that characteristically hang together in a practice. The second section of the chapter moved to describe the reasons behind the introduction of CI into NSW local government in Australia and described the various frameworks in operation. The third section of the chapter considered the relationship of CI and learning. With the teleo-affectiveness of CI practices absent, NSW local government has limited opportunities for learning. The consequences of limiting learning are explored through the worker and CI practitioner interviews and ALS in Chapter 5.

Chapter 4 *clarified the research* methodology and illustrated the approach. This choice of methodology was motivated by the research paradigm of social constructivism. With TPA being grounded in a site ontology, the evidence was sourced from semi-structured interviews, direct observations, action learning sets, researcher reflection and researcher notes. The interviews and ALS were digitally recorded and the data was sorted thematically (Fereday & Muir-Cochrane 2006; Lochmiller 2021).

Chapter 5 *presented* the data and analysis of the case studies and ALS. The first section of the chapter commences with interviews conducted with CI practitioners who belong to a NSW local government CI practitioner group known as Crop Swap. Through the interviews and analysis using the lens of TPA, the conditions of their practice are revealed. The data indicates the rise in the use of service reviews is driving two parallel architectures of practice to operate: one that administers service reviews, and another where the CI operative is given the responsibility for the application of CI tools. Such positioning of CI has resulted in the reinforcement of organisational silo thinking.

Chapter 6 *continued* the data presentation with the focus on ALS. A new site practice of critical reflection was introduced and was favourably adopted by research participants. In so doing these ALS emerged as new sites of learning that saw the set members develop their understanding of how to go on in the new practices. In Chapter 2 the notion of CI and learning was discussed. The ALS provided an exemplar of this relationship where each mutually reinforces the other. The ALS provided the site to clearly define work-based problems and attend to developing actions to solve the problem. Each of the problem-presenters reflects on their accomplishments and refers to the problem statement in determining if the problem is resolved, or indeed if their understanding of the problem has shifted or changed. This

practice of problem definition and problem-solving is indicative of a return to the practice traditions of CI. The hallmarks of ALS make it possible to identify them as a framework of CI.

Chapter 7 *drew* insights from the case studies and ALS and provided an interpretation through the lens of theory of practice architectures. The insights were presented as they related to each of the research questions. The research findings supported previous literature describing factors that constrain CI in NSW local government and the public sector Radnor (2010b); Radnor and Boaden (2008); Radnor et al. (2012); Radnor and Johnson (2013). Applying a lens of TPA has explicitly linked conditions of practice to organisational learning. Where CI practice traditions have been lost the introduction of ALS has enabled these practice traditions to emerge albeit without the connotations associated with CI. For the research participants, this marks for some a return to CI practice. Accompanying a return to practice is the envelopment of a critical disposition (praxis) where the CI practitioner and worker engage in an internal dialogue of knowing and doing what is right Kemmis and Grootenboer (2008). Action learning sets have enabled the development of a site that is notable by newly emerging sayings, doings and relatings that the data has demonstrated are supporting the emergence of critical praxis. The data from the research supports the contention it is set practices that invited participants to reflect and connect.

Chapter 8 *Discussion* drew insights from the ALS and interviews drawn from the data and findings of Chapters 5 and 6. These research findings support previous ALS literature that identifies the sets that were conducted as a site that promoted problem-solving and built a sense of camaraderie amongst participants. Adapting ALS to include critically reflective questions and individual follow-up sessions enabled the problem-presenters to discuss how they were able to go on in the new practice and talk about their ability to frame and reframe a work-based problem until they were able to capture succinctly the nature of the problem. The incorporation of critical reflective practice has explicitly facilitated the linkages of TPA and CI, and this thesis represents the coming together of these in one research project.

Importantly the findings point to a return to the practice traditions of CI when workers and CI practitioners are able to enact the practice traditions of CI through participating in ALS. This requires a repositioning of CI inside NSW local government to include the telos of CI projects across the organisation. Furthermore, ALS do not consume scarce budget resources in the same way service reviews and other quality frameworks do when reliant upon external management consultants to implement and train staff. The findings from the research refute the idea that CI in NSW local government requires input from external management consultants, either initially to set a framework in motion or in an ongoing engagement of services to ensure sustainability. This research also refutes the notion that CI has to be named as such for improvement to occur. When workers and CI practitioners are afforded the opportunity to come together in solidarity, present work-based problems and critically reflect, this research has recognised improvement flows.

The following section will summarise the substantive contributions of the research.

Contributions

The application of the Theory of Practice Architectures (TPA) is considered a novel theoretical approach applied to continuous improvement that is recognised as a substantive theoretical contribution. Through an analytic lens of TPA this research has surfaced how local CI practices are shaped by the local conditions existing inside local government. Specifically, the use of TPA has identified an absence of the CI practice traditions, in particular those of problem definition, problem-solving, critical reflection and action. Within NSW local government the embedding of business as usual has resulted in the enactment of 'anti-improvement', where work-arounds are normalised. Without the use of methods of problem definition and problem-solving, such an approach as is operating in NSW local government can best be regarded as tampering.

Theoretical contributions

With CI methods constrained so too is the learning that is closely associated with the application of CI frameworks, such as Deming's PDCA cycle. Furthermore, in the application of TPA to the research problem a new understanding of CI and learning emerges, one where workers and CI practitioners are both able to go on in newly emergent practices as demonstrated through the ALS, where, for example problem definition, critical reflection, and action planning emerged. In follow up interviews with the problem-presenters these research participants shared ways they as individuals were able to go on in these new practices. The practices of the ALS reflect those of Deming (1986) and Kaizen (Imai 2013). This research has reinterpreted action learning sets to be discussed as a further framework of CI. Action learning sets have not previously been recognised as a method of CI. This research has foregrounded the practice traditions of CI as described by the early quality theorists embedded in ALS practices. Such reconceptualisation shifts the ontological viewpoint of CI away from an individualist paradigm. This is considered to be an important contribution to the CI literature, where traditionally the individualist paradigm has been used to examine phenomena and is the prevailing ontological argument. This shift progresses the advancement of CI research.

In shifting the viewpoint of CI from the individualist paradigm is considered to be an advancement of CI research particularly with regard to the growing interest in Quality 4.0 that emphasises the deployment of technology as an improvement strategy. Calls from scholars see for example: Antony et al. (2021); Sony et al. (2021) and Vinodh et al. (2021) for a human-centred approach to improvement to operate in tandem with Quality 4.0 in order to avoid barriers to implementation. In taking this integrative approach a greater understanding of customer needs and demands are foreground and shared. ALS offer industry a low cost, worker driven approach that may be adopted together with Quality 4.0.

Further contributions

Societal and practical implications

This thesis brings together two disparate literatures -Theory of Practice Architectures (TPA) and Continuous Improvement (CI) - that have not previously been discussed in relation to one another. This research has extended the breadth and reach of TPA into additional disciplines of operations: CI and quality management. Applying a lens of TPA has enabled contradictions found in neoliberal policies to surface that have resulted in individualistic behaviours that have organisational policies and practices restrict collaboration and reinforce the position of organisation silos, resulting in the limiting of CI actions. This is considered to be a societal contribution of this thesis.

Action Learning Sets offer organisations an alternative approach to CI that has seen workers actively engage with the traditions of CI in ways that have emerged from the site. These newly emergent practices have not required the expenditure of large sums of scarce resources in the way of consultants contracted to facilitate training or infrastructure such as IT systems. The introduction of ALS into a site offer both a pragmatic and cost effective approach to the continuous flow of improvement.

Managerial implications

This research offers management an additional approach to conducting CI that enables the deployment across all levels within the organisation where all workers have a foci on improvement. For management the foci shifts from one-off enactments of CI actions to facilitating a continuous dialogue done in a manner that is represented as being caring. ALS offer management of work-based problems in a way that shifts emphasis back to workers.

The practices of ALS facilitate communication around work-based problems that managers may not have been aware of previously. Resituating problem solving back to workers has seen workplace shifts in sayings, doings and relatings that have given rise to empowered workers and in doing so managers are free to take up roles more closely associated with coaching and mentoring that may have been overlooked in the past. This is important as it presents opportunity to build relationships of trust in the workplace.

The following section will discuss the study limitations and opportunities for further research.

Limitations and opportunities for further research

In this section I consider the limitations of the study. This is followed by opportunities to take the research into new areas.

Limitations of the research

As a research methodology ALS take considerable time to enact a full cycle of problem definition

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through to problem resolution. It is considered that not all organisations would make the time available to workers to engage with set practices.

Not all work-based problem types may be suitable to be brought to an ALS. For example problems those determined to be high risk if not dealt with in an expedited manner would fall outside the scope of ALS in the manner reflected in the research methodology.

Opportunities for future research

In consideration of the opportunities for future research it is considered that undertaking a longitudinal study using ALS to ascertain if the benefits identified in this research are sustainable. Continuous improvement is notionally understood as being good for business, therefore it would be beneficial for future studies to focus on the introduction and application of ALS practices over the longer term to identify how improvement is discussed, and the embedding of ALS practices, specifically the articulation of problem definition and problem-solving methods.

An additional opportunity exists for ALS to be introduced simultaneously with Quality 4.0 in response to growing calls for a human – centred approach.

The use of online ALS may be a novel approach to take where workers from the same industry come together. An online ALS enables workers to access the group remotely and this may facilitate ongoing relationships with group members despite the fact that workers may change employer or work location.

ALS could also be developed into a form of continuing professional development for those workers who have a professional requirement for learning to be undertaken yearly.

An additional research opportunity exists in the adoption of an ethnographic approach using document analysis, observation of both Crop Swap and worker team meetings, and shadowing techniques of both CI practitioners and workers.

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Appendices

Appendix 1

Practitioner introduction letter/email 1

Dear member of Crop Swap

This letter/email is to introduce Janelle Davidson who is a Higher Degree Research student in the Faculty of Business at Wollongong University. She is undertaking research leading to the production of a thesis or other publications on the subject of Embedding Learning in Continuous Improvement practices within Local Government.

She would like to invite you to assist with this project by agreeing to participate in 3 Action Learning Sets; semi-structured interviews and participation in 1 Focus Group. A total of approximately 10 hours would be required. The activities will be run across a number of months in 2018.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.

Janelle intend(s) to digitally record all of the Action Learning Sets, interviews and focus group, she will seek your consent, on the attached form, to record and to use the recordings or a transcription in preparing of the thesis, report or other publications, on condition that your name or identity is not revealed.

Any enquiries you may have concerning this project should be directed to me Dr Matthew Pepper, pepper@UOW.edu.au, 42215419 or Dr Oriana Price, price@UOW.edu.au, 42528571.

Yours sincerely

Dr Matthew Pepper
Faculty of Business
University of Wollongong

Appendix 2

Participant consent form exemplar

CONSENT FORM

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CONSENT FORM FOR NORTH SYDNEY LOCAL GOVERNMENT PARTICIPANTS

TITLE: EMBEDDING LEARNING IN CONTINOUS IMPROVEMENT

I have read the participant information sheet and have had the opportunity to ask the researchers questions about my participation in the research. I understand that my participation in this research is voluntary and I may withdraw at any time without giving a reason or affecting my relationship with the University of Wollongong in anyway. I understand that there are no foreseeable risks to participating in this research, other than the time required to participate in the Action Sets activity during scheduled working hours and semi-structured interviews.

If I have any concerns or wish to provide feedback regarding the way the research is or has been conducted I can contact Dr Matthew Pepper, Chief Investigator, on 42215419 or the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on 42213386.

Tick the box below to indicate what you are consenting to:
- Being audio recorded.
- Participating in two action learning sets and in the semi-structured interviews.

I understand that the information from me will be used for PhD and research publication and I consent for it to be used in this manner. All data collected will be de-identified and will be held securely on a password protected university server and managed in line with university policy.

Signature: _____
Name: (please print) _____   Date: _____
Email address:

Appendix 3

Human ethics approval email

irma-support@uow.edu.au
Wed 14/11/2018 1:25 PM

To: Matthew Pepper
Cc: Matthew Pepper; Oriana Price; Janelle Davidson; rso-ethics@uow.edu.au

Dear Dr Pepper,

I am pleased to advise that the amendment request submitted to the application detailed below has been **approved**.

Ethics Number:	2018/083
Amendment Approval Date:	13/11/2018
Expiry Date:	19/03/2019
Project Title:	Embedding learning in continuous improvement activities in local government
Researchers:	Pepper Matthew; Price Oriana; Davidson Janelle
Documents Approved:	• Response to Review rec. 08/11/2018 • Consent Form V2, 08/11/2018 • Focus Group Questions V1, 08/11/2018 • Participant Information Sheet – SBS V2, 08/11/2018 • Participant Information Sheet UOW V2, 08/11/2018
Amendments Approved:	Inclusion of Focus Groups

The HREC has reviewed the research proposal for compliance with the *National Statement on Ethical Conduct in Human Research* and approval of this project is conditional upon your continuing compliance with this document. Compliance is monitored through progress reports; the HREC may also undertake physical monitoring of research.

Please remember that in addition to submitting proposed changes to the project to the HREC prior to implementing them the HREC requires:

- Immediate report of serious or unexpected adverse effects on participants.
- Immediate report of unforeseen events that might affect the continued acceptability of the project.
- The submission of an annual progress report and a final report on completion of your project.

If you have any queries regarding the HREC review process or your ongoing approval please contact the Ethics Unit on 4221 3386 or email rso-ethics@uow.edu.au.

Yours sincerely,

Emma Barkus

Associate Professor Emma Barkus,

Chair, UOW & ISLHD Social Sciences <mark>Human</mark> Research <mark>Ethics</mark> Committee

The University of Wollongong and Illawarra and Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in <mark>Human</mark> Research.

Appendix 4

Email from Crop Swap convenor

2 March 2018

To whom it may concern,

I, Lucy Heycott, as the current convener of Local Government Improvement Network (Crop Swap), confirm Janelle Davidson has permission to approach members of the Crop Swap forum regarding her studies at the University of Wollongong.

This was raised during a Crop Swap meeting in November 2018 and was supported by all members present. Janelle is an active and valued member of the Crop Swap and we are happy to support her studies.

Kind Regards,

Lucy Heycott
Convener
Local Government Improvement Network (Crop Swap)

Appendix 5

Local government annual reports used in desktop document review

| Pseudonym	Local government
Mountain range City Council	Penrith City Council
Airport Council	Bayside Council
Olympia City Council	City of Ryde
CityView Council	North Sydney Council
Shelly Council	Shellharbour Council

Appendix 6

Action Learning set – participant handout

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WHAT IS AN ACTION LEARNING SET?

A continuous process of learning and critical reflection supported by your colleagues and/or peers, with an intention of getting things done. There is a focus on real issues or problems that have so far defied solution. An Action Learning Set is a constructive and effective way to gather insight from other members as to how they have approached a similar or dissimilar situation. Consider that Action Learning is a way of developing the capacity for asking fresh questions and not communicating advice on technique. Within an Action Learning Set there is no one-way of doing things or no one solution. It is up to the individual to critically reflect and decide what is the best solution for them in their particular circumstances.
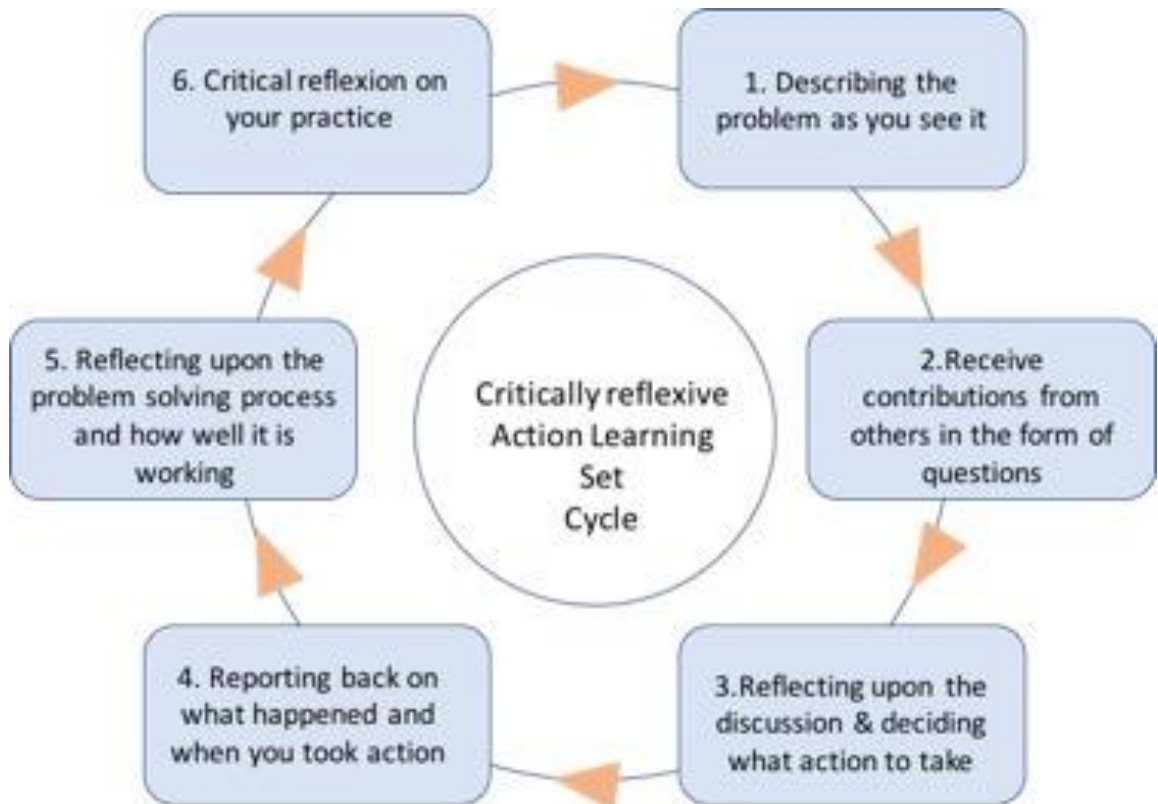
HOW IT WILL WORK

The process of the Action Learning Set will create "airspace" for each participant. The remainder of the group adopts a helpful questioning approach, ie, no advice and no general discussions.

There will be a facilitator who will work with the group.

WHAT HAPPENS IN A MEETING?

Problem-Presenter

One participant – the problem-presenter; tells a story to the other members. Any future meetings will be a continuation of the story which other participants will get to know well and become involved in. A participant story provides the opportunity for the problem-presenter to focus on *their* story and not just a series of events. It is the telling of *their* experiences not just facts and figures. It is *their* anecdotes not just a progression of events. The problem-presenter will tell us how *they* felt and not just report what was happening. They will use their metaphors (to aid understanding) and not just facts.

Some useful statements for a problem-presenter to consider may include:

"I'd like to explore …"
"I'm wondering whether …"
"I'm not sure if …"
"I'm uncertain about …"
"I'm confused by …"

Tips for a Problem-Presenter:

Attendance at each Action Learning Set
Structuring of time
Being clear in their mind about what they want to achieve at each Action Set

Some useful tips for questioning a Problem-Presenter

To clarify	"Are you saying that …?"
To seek understanding	"Could you explain X and Y a bit more?
To follow through a train of thought	"You said a moment ago that … if that is the case what would happen if …?
To mirror or check your understanding	"So, what you are saying is …?
To explore new ground	"Have you explored thought of …? "Would X be of any help …?
To challenge	"What do you feel most uncomfortable about? "What do you feel most challenged by?
To elicit honesty	"Do you feel you are making an impact? If not what can you do about it?
To dig deeper	"So then what happened?
To check in	"Are we asking useful questions?" "What haven't we helped you with yet?

Helpful behaviours by Action Set Members includes:

Attendance
Active listening
Learning not to interrupt
Conveying empathy
Supportive
Challenging
Providing information (where required)
Offering insights and ideas (but not advice)

Note taking for Action Set Members

Date	Your name
Problem-presenter's name	

Questions you have

Ideas/resources/reading

Appendix 7

Reflective questions for problem-presenter

My learning	What I will do when I return to the workplace
Was the Set helpful? Why/why not	What else do I need?

Appendix 8

Sample questions for semi structured interviews

SEMI STRUCTURED INTERVIEW QUESTIONS
Interview 1

1. Tell me about your organisation

2. Where do you fit in the organisation?

3. Tell me about your role? What are the roles and responsibilities that a Continuous Improvement practitioner has in your organisation?

4. How did you think the activity went?

5. What did you expect from the activity?

6. During the Action Set activity, what personal insights, issues, ideas, moments or comments have offered you the potential for personal reflection or significant learning?

   Continue with questions 7-10 for problem-presenters

7. Did you succeed in carrying out the planned actions? If not, what prevented or discouraged you? What have you learned about yourself, your skills, attitudes, and so on?

8. If you did carry out the actions, in what ways were you mistaken about the effect they would have? Which of your assumptions about the actions misled you?

9. What have you learned? What actions will you try next time?

10. Since participating in the study what new insights have you gained about yourself and how you approach your role?

Interview 2

When we spoke previously you identified you had learned …

1. What impact has this had on your way of doing your job?

2. What are you going to do with this insight/learning now?

3. What possibilities does this new insight offer you?

4. Have your ways of thinking and acting been challenged