Organisational Learning Culture: The Relationship to Employee Well-being and

Employee Resilience.

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Abstract

Organisations who want to compete and survive in today's turbulent business environment must not only be able to continuously update the human capital that exists in a firm, but also ensure they promote the development of a workforce who can adapt to ongoing, dynamic challenges, and maintain a positive state of mental health and functioning so that they can successfully contribute to innovation and performance. One way that organisations can achieve sustainable competitive advantage is by establishing an organisational learning culture that promotes continuous learning and capability development. The purpose of the current study was to explore the effect of learning culture dimensions, namely continuous learning, inquiry and dialogue, team learning, knowledge sharing systems, and empowerment, on employee well-being and resilient behaviours, when proactive personality and positive affect were controlled for. A self-report online questionnaire was distributed to professionals from a number of New Zealand and Australian organisations at a single time point. Regression analyses on a sample of 189 professionals found that continuous learning was significantly related to employees' well-being and resilience, beyond the effect of individual differences on these outcomes. However, no other learning culture dimension examined in the study was significantly related to well-being or resilience, once individual differences were controlled for. These findings indicate the importance of continuous learning opportunities for improving well-being and promoting resilient behaviours among employees, and suggest that this feature of a learning culture may have a more positive impact on individual outcomes than the other features. Future research is needed to explore what outcomes the other learning culture dimensions directly tap into.

Introduction

Due to intense global competition, rapid innovations in technology, and increasingly unpredictable fluctuations in economic and consumer trends, the contemporary business environment is undergoing unprecedented changes (Dekoulou & Trivellas, 2015; Malik & Garg, 2017). In this context, organisations need to be able to continuously update and preserve their human capital, ensuring a workforce who can adapt to dynamic challenges, while maintaining a positive state of mental health and functioning so that they can successfully contribute to innovation and performance. Such an environment calls for a focus on both organisational and individual development.

A major source of sustained competitive advantage in the new era of business ambiguity lies in an organisation's ability to develop into a learning organisation that can continuously modify, through learning, its established guidelines based on new knowledge and experiences (Dekoulou & Trivellas, 2015). Many companies, being aware of this fact, focus on building and improving technical systems and infrastructure that support knowledge creation and dissemination, so as to establish learning as a continuous process (Lopez, Peon & Ordas, 2004). However, they often fail to focus on individual and social processes of learning, and the cultural and relational context in which it unfolds. This oversight undermines the effectiveness of knowledge management processes, and means that many organisations miss the opportunity to capitalise on the wealth of human potential that exists in a firm.

Over recent decades, Human Resource Management researchers and practitioners have turned their attention to a cultural perspective on learning (e.g. Cook & Yanow, 2011; Lopez, Peon, & Ordas, 2004; Marsick & Watkins, 2003). Learning cultures are those that facilitate ongoing learning and capability development, and establish an atmosphere of open and honest communication and support that encourages collaboration, experimentation, creativity, and responsible risk taking (Rebelo & Gomes, 2011). Scholarly efforts have aimed to enrich our

understanding of how organisations can achieve optimal outcomes by developing a learning culture in which learning is embedded in day-to-day activities.

Beyond formal training interventions designed to enhance professional skills, leadership capabilities and organisational effectiveness (Watson et al., 2018), the opportunity and willingness to engage in informal and non-structured learning becomes a possibility when a learning culture exists. The latter form is considered superior to formal processes (Manuti, Pastore, Scardigno, Giancaspro & Morciano, 2015), key to meaningful learning experiences, and essential to the development of human capital resources (Noe et al.,, 2014). Organisational cultures that promote informal learning processes and activities are thought to produce more effective and sustainable outcomes, as learning is seen to permeate every organisational activity, holds meaningfulness and relevance at the individual level, and guides employees to strive for continuous improvement and to remain equipped to respond to status quo changes (Marsick & Watkins, 2003; Ahmed, Loh, & Zairi, 1999).

Researchers have tended to focus on the impact of learning culture on performance-oriented outcomes (e.g. Cerne, Jaklic, Skerlavaj, Aydinlik, & Polat, 2012; Davis & Daley, 2008; Pantouvakis & Bouranta 2013; Song & Kolb, 2012), while the interplay of learning culture and individual-level variables, namely the development of desirable mental states and adaptive workplace behaviours, remains scarcely researched. The present study seeks to explore whether learning cultures are associated with positive mental health and functioning, and adaptive, learning-oriented, and network leveraging work behaviours among employees (i.e., resilient behaviours). Specifically, this study aims to investigate the relationship between features of a learning culture, and employee well-being and resilience.

The motivating potential of learning and development opportunities, knowledge sharing, and knowledge utilisation are well-documented in the literature (e.g. Banerjee, Gupta, & Bates, 2016; Lam & Lambermont-Ford, 2010; Malik & Garg, 2017; Noe, Clarke, & Klein,

2014), so a learning culture is therefore expected to yield the positive emotional and psychological states that promote wellbeing, and to prompt resilient behaviours that signal continual improvement and adaptability.

Studying the impact of learning culture on well-being and resilience becomes particularly salient due to the growing awareness that investing in the development of human, social, and psychological capital through organisational practices leads to sustained business success (Luthans & Youssef, 2004). Therefore, this study adds to the Human Resource Management and Organisational Psychology literatures and practice by exploring how organisations can rely on culture to enhance human and social capital, and foster positive employee attitudes and behaviour.

Organisational Learning Culture

Organisational learning refers to the processes and activities through which information is continuously generated, disseminated, stored, and applied in ways that exploit existing organisational knowledge, while promoting the evolution of new knowledge and ideas that lead to improvements in organisations (Lau, McLean, Hsu & Lien, 2016; Lopez, Peon & Ordas, 2004). Learning at this level allows organisations to adapt to change or crises, and integrate new ways of functioning into organisational strategy, structure, ideology, and vision (Meyer, 1982). In doing so, they can transform into a 'learning organisation' that continually evolves as a result of using embedded learning processes to achieve its outcomes (Lau et al., 2017).

There is a distinction to be made between formal and informal learning. Formal learning is predominantly structured learning aimed at achieving specified outcomes and equipping employees with practical skills to address gaps in existing capabilities (Lau, Lee, & Chung, 2019; Eraut, 2000). Informal learning is typically more person-oriented, learner-driven, and self-directed (Lau et al., 2018). It occurs on-the-job, through experience and conversations with others, and within groups or teams, involving a strong social and relational element (Manuti et

al., 2015; Marsick & Watkins, 2003). While formal training is still recognised as valuable, the arising needs and pressures of the contemporary organisation such as innovative business practices, globalisation, and the emergence of a knowledge-based society have left traditional modes of learning considerably challenged due to their inflexibility and ineffectiveness in responding to dynamic changes (Lau et al., 2018). Furthermore, while organisations are increasingly adopting an employee-centred approach to their HRM practices (Baker, McKay, Morden, Dunning, & Schuster, 1996), formal learning typically overlooks the needs of the individual learner (Watson et al., 2018). Conversely, informal learning is thought to optimise learning efficiency beyond formal training because it has the potential to stimulate the use of a deeper learning approach characterised by a genuine interest in learning content, and a greater drive for understanding and competency development (Froehlich, Segers, & Van den Bossche, 2014).

As informal learning approaches have gained momentum in the Human Resource Management and Organisational Development research, so too has the concept of learning culture. To ensure that formal and especially informal learning processes produce the best possible outcomes for both the learner and the organisation, researchers have turned their attention to organisational culture to identify the optimal conditions that support learning in and by organisations (Rebelo et al., 2017; Rebelo & Gomes, 2011; Marsick & Watkins, 2003).

Organisational culture describes the pattern of shared beliefs, values, and behavioural norms that a group learns as they interact with the internal and external environment, which is taught to new members as the appropriate way to perceive, think, feel, and behave in a given workplace context (Schein, 1992). A cultural perspective on learning views organisations as communities of work who learn based on shared beliefs and assumptions about the value of knowledge sharing and acquisition as a means to achieving organisational goals (Banerjee, Gupta, & Bates, 2016; Marsick & Watkins, 2003).

Rebelo and Gomes (2015) define learning culture as "an organisational culture that is oriented towards the promotion and facilitation of workers' learning, its sharing, and dissemination, in order to contribute to organisational development and performance" (p. 330). Such a culture promotes human and social capital development through an infrastructure rich with resources and tools that empower employees to engage in on-going collaborative learning, and knowledge sharing activities in order to develop a collective mindset and new capacities (Watkins & Kim, 2017). Learning cultures are distinguished from other cultures in that they consider learning to be a core value, emphasise individual growth and development, encourage an attitude of responsible risk-taking, stimulate creativity and experimentation, and invite employees to engage in self-reflection, recognise errors, and learn from them (Rebelo & Gomes, 2011; Lau et al., 2018; Lopez et al., 2004). They also emphasise collaboration and teamwork, which requires an orientation towards people and a shared belief in the value of interdependence in order to leverage diverse skills (Rebelo & Gomes, 2011). Essential to a learning culture is an atmosphere of trust and support whereby individuals can comfortably challenge the status quo, experiment with new ways of working, and collaborate across organisational boundaries, with the understanding that these behaviours are encouraged and rewarded by the organisation (Rebelo & Gomes, 2011). Given its conceptual and operational complexity, researchers have treated learning culture as a multi-dimensional construct, and developed several frameworks to characterise it. The present research will address these existing frameworks in order to explore how different components of a learning culture may relate to well-being and resilience.

Marquardt (1996) was one of the first researchers to develop a learning culture framework, based on his work with over 50 learning organisations. The framework advances nine features of a learning culture: (1) valuing learning through an atmosphere that both stimulates and rewards learning (i.e. reward systems) (2) establishing a shared responsibility

for learning that is in line with the organisation's objectives, (3) creating mutual trust and autonomy by encouraging experimentation, feedback, and autonomous decision-making and action, (4) highlighting the value of mistakes as an opportunity to learn and innovate through experimentation and responsible risk-taking (5) committing to financial investments in training and development, (6) ensuring diversity and variety are upheld as a way to promote creativity and innovation, (7) valuing and committing to the continual improvement of products and services, (8) encouraging the perception of change as a challenge to be overcome, and an opportunity to find new ways to respond and innovate, and (9) nurturing the physical and psychological well-being of employees so as to demonstrate respect for the whole person (Marquardt, 1996; Rebelo & Gomes, 2011).

Based on Marquardt's work, Marsick & Watkins (2003) have subsequently developed a learning culture framework that is widely recognised and relied upon in academic research. According to Marsick & Watkins (2003), a learning organisation: 1) Creates Continuous Learning Opportunities by embedding learning into the job and providing on-going growth and development; 2) Promotes Inquiry and Dialogue, and establishes a culture that supports questioning, feedback, and experimentation; 3) Encourages Collaboration and Team Learning by designing work so that people work collectively and gain access to different styles of thinking, simultaneously creating a culture that values and rewards collaboration; 4) Creates Systems to Capture and Share Learning; 5) Empowers People Towards a Collective Vision by involving them in establishing that vision, and holding them accountable for important decisions and responsibilities; 6) Connects the Organisation to its Environment so that individuals can adjust work practices based on external cues; and 7) Provides Strategic Leadership For Learning and demonstrates its use for strategic objectives.

The frameworks outlined signal great convergence on the characteristics that constitute a learning culture, and highlight the strong social and relational components essential to

fostering an environment where employees are empowered towards on-going and collaborative learning. The present study will rely on Marsick and Watkins' (2003) learning culture framework to test the associations between learning culture dimensions and employee outcomes.

Researchers have long studied the impact of learning culture on work efficiency and performance, and more recently on other organisational outcomes, including innovation (e.g. Liao, Chang, Hu & Yueh, 2012, Skerlavaj, Song, & Lee, 2010), customer satisfaction (e.g., Pantouvakis & Bouranta, 2013), and turnover intention (e.g. Egan, Yang & Bartlett, 2004; Islam, Khan & Bukhari, 2016). However, the body of research considering the relationships between learning culture and employee factors remains scarcely researched. Despite some previous research examining the effects of learning culture on job and career satisfaction (e.g. Dekoulou & Trevillas, 2015; Egan, Yang, & Bartlett, 2004; Joo & Park, 2010), and more recently on emotional resilience, affective commitment to change, and affective well-being (Malik & Garg, 2017; Rebelo, de Sousa, Dimas, & Lourenco, 2017), further empirical evidence is needed to substantiate the role of learning culture on employee mental states and learning-oriented behaviours, and to identify whether and to what extent different facets of learning culture uniquely influence these outcomes.

Learning culture and employee well-being

Well-being is a term used to describe a state of positive mental health, which comprises the domains of positive feelings (i.e. hedonic well-being) and positive functioning (i.e. eudemonic well-being) (Page & Vella-Brodrick, 2009). The terms "flourishing" and "thriving" are often used in the psychological well-being literature to denote a state of optimal psychosocial functioning across multiple mental, physical, and social domains (Su, Tay, & Diener, 2014; Butler & Kern, 2016). Well-being can be defined and measured objectively (e.g. sufficient

resources to meet basic needs) or subjectively (e.g. thriving, flourishing, happiness). The present study will focus on the experience of subjective wellbeing in the workplace.

Ryff's (1989) eudemonic view of positive psychological well-being comprises six components: self-acceptance or positive perceptions of oneself, positive interpersonal relations that are warm and trusting, autonomy or self-determination, environmental mastery, a sense of purpose and meaning in life, and personal growth through the development of one's potential (Ryff, 1989). Seligman's (2011) PERMA model, on the other hand, takes a hedonic perspective in defining the five domains that lead to flourishing: Positive emotion, Engagement, Relationships, Meaning, and Accomplishment. A combination of the two domains forms a multidimensional conceptualisation of well-being that is needed to adequately capture the complex nature of optimal psychological functioning. The current study conceptualises well-being as a broad construct that covers both hedonic and eudaimonic aspects of mental health, including positive affect, satisfying interpersonal relationships, and positive functioning (Tennant et al., 2007).

Well-being has become an important topic in organisational research due to the growing body of evidence to suggest that nurturing the well-being of employees leads to more effective and sustainable business outcomes (Harter, Schmidt, & Keyes, 2002; Keyes, Hysom, & Lupo, 2000; Russell, 2008). Employee well-being is highly influenced by job satisfaction or dissatisfaction, social interactions with co-workers and supervisors, and the wider social context in which the work unfolds (Nielsen, Nielsen, Ogbonnaya, Kansala, Saari, & Isaksson, 2017). Contemporary models of workplace well-being contain elements pertaining to learning and development, as well as socio-cultural and relational elements characteristic of a learning culture. For instance, Kidd's (2008) model of career well-being encompasses career transitions, interpersonal relationships, relationship with the organisation, work performance, sense of purpose, learning and development, and work-life issues. Spreitzer et al.'s (2005) socially-

embedded model of thriving at work includes individual characteristics (e.g. knowledge and positive affect), interpersonal characteristics (e.g. trust and support), and contextual features (e.g. decision-making discretion and broad information sharing) that contribute to employee thriving. Lastly, Grawitch, Billard, & Erb's (2015) conceptualisation of key practices pertaining to a psychologically healthy workplace include employee involvement (i.e. participative decision-making and control over work demands), employee growth and development (i.e. training, development, and continuous learning opportunities related to career development, stress management, and preparedness for change), and employee recognition (i.e. feedback, and intrinsic and extrinsic rewards for participation in the achievement of organisational objectives).

While it is possible to find many similarities among the features that comprise a learning culture and the factors that facilitate well-being, the link between learning cultures and well-being has been starkly understudied. Past research has tended to focus on the impact of general learning on well-being, neglecting to consider the contextual or relational dynamics where learning unfolds, or how individual- and organisational-level learning approaches may combine to enhance the well-being of employees (Watson et al., 2018). While Marquardt's (1996) learning culture framework consists of a dimension dedicated to nurturing the physical and psychological well-being of employees, and studies suggest that individual learning yields positive emotional and psychological outcomes (Watson et al., 2018; Aldridge & Lavender, 2000; Feinstein & Hammond, 2004), more research is needed to establish an association between learning culture and employee wellbeing.

Rebelo et al. (2017) were the first to consider the impact of learning culture on job-related affective well-being, finding that, of the two learning culture dimensions studied, only external adaptation (i.e. the organisation's ability to respond to and learn from external demands), but not internal integration (i.e. an organisation's internal processes that foster

learning) was significantly related to well-being. However, the research suggests that internal learning processes manifested at the employee- and team- level, which are more readily identified by and likely to resonate with employees, may lead to experiences of subjective well-being and thriving, and therefore merit further empirical enquiry.

In what follows, Marsick & Watkins' (2003) learning culture dimensions related to internal learning processes, namely Continuous Learning, Inquiry and Dialogue, Team learning, Knowledge Sharing Systems, and Empowerment, will be discussed in light of their potential association with employee wellbeing.

Continuous learning processes empower employees towards self-development by providing them with behavioural choices and non-threatening information that motivates employees to internalise external goals, engage in self-directed learning, and gain a sense of competence due to the belief that they can control their own behaviour (London & Smither, 1999). When individuals are provided the opportunity to learn new skills, increase their knowledge base, and acquire personal resources, such as self-efficacy, to deal with on-going challenges at work, this provides a buffer against job stressors and leads to improved well-being (Bakker, 2015; Bakker & Demerouti, 2007), Moreover, the provision of continuous learning opportunities signals that the organisation has a fundamental respect for the individual, and also provides employees with a degree of autonomy because as they learn, their career becomes less in the hands of the organisation and more with the self and one's work (Hall & Moss, 1998).

Malik & Garg (2017) suggest that *inquiry and dialogue* encourages positive employee attitudes by providing the opportunity to voice concerns, which makes employees feel recognised and valued. Furthermore, Sparr and Sonnentag (2008) found that environments that support feedback interactions and processes were positively related to employee's job

satisfaction, Feedback is considered a resource that encourages personal control over information and decisions at work, which ultimately improves well-being.

Creating and exchanging new knowledge collectively (i.e., *team learning*) requires that people engage in intensive and laborious social interactions with one another, and develop a shared understanding about the knowledge created so that they can engage in collective reflection and problem-solving (Mittendorff, Geijsel, Hoeve, de Latt, & Nieuwenhuis, 2006). Knowledge sharing networks found in collaborative learning cultures are thought to encourage social connectivity among employees, build cooperative relationships based on mutual trust and reciprocity, and enable the development of diverse and expansive knowledge and capabilities among employees that build confidence (Malik & Garg, 2017; Jo & Joo, 2011). Positive interpersonal relations at work have consistently been linked to job satisfaction (e.g. Chiaburu & Harrisonn, 2008) and improved well-being (e.g. Simon, Judge, & Halvorsen-Ganepola, 2010).

In line with the job-demand-resources model, knowledge can also be seen as an organisational resource that aids in maintaining high work engagement and motivating employees towards the achievement of work goals, which are important for improving well-being (Bakker & Demerouti, 2007). In this sense, it is thought that employees may experience positive emotions related to improved well-being to the extent that organisations make knowledge easily accessible to employees through its *knowledge sharing systems*.

Empowerment, a proactive and strategic style of management, is thought to provide informational cues that enhance the degree of self-efficacy about one's ability, the autonomy and responsibility for an individual's actions, and the perceived value of a task goal or purpose (Islam, Khan, & Bukhari, 2016). By empowering people towards collective action through processes such as involvement, responsibility, and accountability, learning cultures may have a positive impact on well-being by enhancing positive perceptions of oneself, promoting a

sense of autonomy and self-determination, and encouraging employees to find personal meaning in their work. The evidence thus far points to a positive association between learning culture features related to internal learning processes and well-being. Therefore, the following is hypothesised:

H1a: Continuous Learning will be positively related to employee well-being.

H1b: Inquiry and Dialogue will be positively related to employee well-being.

H1c: Team Learning will be positively related to employee well-being.

H1d: Knowledge Sharing Systems will be positively related to employee well-being.

H1e: Empowerment will be positively related to employee well-being.

Learning culture and Employee Resilience

Early conceptions of employee resilience focused on the individual capacity to bounce back following adversity. Contemporary researchers have extended that conceptualisation to consider employee resilience as a behavioural capability that does not need to be crisis-contingent, but can be exhibited when facing day-to-day recurring demands associated with change and uncertainty (Stokes et al., 2019; Kuntz, Malinen, & Näswall, 2017; Näswall, Malinen, Kuntz, & Hodliffe, 2019). In light of this, employee resilience is defined as an adaptive behavioural capacity to gather, integrate and utilize organisational resources, and it is signalled by an employee's ability to engage in proactive, adaptive and support-seeking behaviours (Kuntz, et al. 2017).

Organisations have tended to associate resilience development with personal resilience-oriented activities (e.g. hardiness training), which are removed from daily work demands and contexts (Kuntz et al., 2017). However, the contemporary perspective posits that resilience development requires an enabling organisational environment where employees are supported with the resources to engage in proactive and adaptive learning behaviours (Näswall et al., 2019). Underscoring this view is the idea that employee resilience can be developed through

the availability of workplace resources and interventions, that when embedded into day-to-day functioning support the capacity to deal with the frequent and recurring demands of business as usual, and enhance personal resilience (Kuntz et al. 2016; Tonkin, Malinen, llll, & Kuntz, 2018). Additionally, focusing on the mutual enhancement of employee and organisation resources promotes the development of more effective and sustainable resilience capabilities (Kuntz et al., 2016).

Organisations with strong learning cultures view change as an opportunity to learn and improve, rather than as a threat (Ahmed, Loh, & Zairi, 1999). Such cultures signal an environment rich with resilience-promoting factors (e.g. performance feedback, peer and managerial support, accountability for results) that encourage the development of adaptive and proactive resilience behaviours (Kuntz et al., 2016). Researchers have linked learning cultures to heightened responsiveness to change (Antonacopoulou, 2006), and more recently, to change adaptability through the development of skills to deal with on-going changes at work (Van Breda-Verduijn and Heijboer, 2016). Though limited, the empirical evidence thus far points to a positive association between learning culture and resilience, the latter defined as an adaptive and resource-utilizing capability (Malik & Garg, 2017).

Learning cultures are expected to stimulate the development and enactment of resilient behaviours in several ways. In what follows, Marsick & Watkins' (2003) learning culture dimensions related to internal learning processes will be discussed in light of their potential to promote employee resilience. First, when employees are provided with *continuous opportunities to learn* and enhance their skills, they feel more secure to challenge the status quo and experiment with new ideas, thus becoming more adaptive and flexible (Malik & Garg, 2017). Such continuous learning enhances one's skill set and behavioural repertoire, which aids in the adaptation to new or nonroutine work events (Han & Williams, 2008), and the capacity for ongoing resource generation and utilisation (Stoke et al., 2018). Continuous

learning is typically integrated with and runs parallel to work (Marsick & Watkins, 2003), allowing transferability to daily work demands. Furthermore, learning organisations use continuous learning to catalyse and support individual, team, and organisational growth to deal with the challenges and uncertainty that contemporary businesses face (Marsick & Watkins, 2003).

The process of seeking and utilizing both positive and critical feedback to improve work processes is in itself an example of proactive, learning-oriented resilient behaviour (Stoke et al., 2018). Organisations that promote the open and safe communication of ideas, suggestions or opinions aim to improve or challenge the status quo by encouraging employees to speak up and discuss constructive problem-solving solutions (Rees, Alfes, & Gatenby, 2013). Such constructive *dialogue* between employees could be viewed as way in which the organisation's learning culture encourages learning and adaptive behaviours.

Previous research suggests that *team learning* climate positively affects employee's adaptive performance (Han & Williams, 2008). In such a team climate there is a shared expectation about the importance of knowledge application and transfer, which contributes to the ongoing development of an adaptive skill set and behavioural repertoire among members (Han & Williams, 2008). Researchers suggest that resilient behaviours such as utilising networks and learning from mistakes are facilitated to the extent that organisations support collaborative work, foster supportive relationships, and develop efficient social networks (Näswall et al., 2019; Stoke et al., 2018).

Team networks can provide a source of employee support and knowledge by allowing members to more readily leverage feedback, collaborate on work tasks, and access social support in the face of challenges (Stoke et al., 2018). Establishing and growing these networks is thought to result in positive outcomes like well-being and change adaptability because they foster and improve network-leveraging behaviours that are enacted by employees and

reciprocated by others within their network over time (Stoke et al., 2018). Indeed, Bruque, Moyano, and Piccolo (2016) found that the size of one's internal social network from which one receives support influences their adaptability to change.

Central to the behavioural construct of employee resilience is the idea that certain organisational resources influence how individuals cognitively appraise challenging circumstances, and developing resilience capabilities requires that employees not only recognise the availability of resources, but that they gather, integrate and utilize these resources on an on-going basis (Naswall et al., 2019). By creating *knowledge sharing systems* to capture and share knowledge so that it is readily available throughout the organisation, it is thought that employees will be in a better position to utilise and integrate this knowledge into their work, which signals adaptability. Hence, the following is hypothesised:

H2a: Continuous Learning will be positively related to employee resilience.

H2b: Inquiry and Dialogue will be positively related to employee resilience.

H2c: Team Learning will be positively related to employee resilience.

H2d: Knowledge Sharing Systems will be positively related to employee resilience.

H2e: Empowerment will be positively related to employee resilience.

It is widely acknowledged and empirically supported that individual differences, namely personality traits and emotional states, interact with situational factors to influence employee attitudes and behaviours (Robertson & Callinan, 1998). Proactive personality and positive affect are two individual difference variables that are thought to impact employee well-being and resilience, and will therefore be measured as control variables in this study.

Proactive personality denotes the personal disposition toward proactive behaviour, and describes the extent to which an individual takes action to change their environment (Bateman & Crant, 1993). It can be defined as 'taking initiative in improving current circumstances or

creating new ones; it involves challenging the status quo rather than passively adapting to present conditions (Crant, 2000, p. 436). As conceptualisations of employee resilience have shifted to focusing on resilience as a behavioural construct, research has examined the impact of proactive personality on resilient behaviours, namely network building and initiative, finding a positive relationship (Thompson, 2005). More recently, Nguyen, Kuntz, Naswall & Malinen (2016), in their study of the relationship between proactive personality, optimism, leadership style, and resilient behaviours, found that proactive personality was a significant predictor of resilient behaviours. Thus, it is believed that individuals with the propensity to proactively leverage and develop personal and workplace resources are ultimately more resilient employees (Kuntz, Connell, & Naswall, 2017; Stoke, 2019).

Positive affect reflects the extent to which individuals feel enthusiastic, active, and alert, denoting a state of high energy, concentration, and enjoyable engagement (Watson, Clark & Tellegen, 1988). It involves experiencing pleasant moods and emotions, which drive positive evaluations of one's life that ultimately shape their levels of subjective well-being (Diener, 2000). According to Fredrickson & Losada (2005), "positivity can transform individuals for the better, making them healthier, more socially integrated, knowledgeable, effective, and resilient" (p.679). The literature suggests that well-being and happiness are tied to the frequency of positive affect (Diener, Sandvik, & Pavot, 1991), whereby positive affect initiates an upward trajectory towards enhanced well-being (Fredrickson & Joiner, 2002), and predicts psychological growth (Fredrickson, Tugade, Waugh & Larkin, 2003). The research has consistently demonstrated that positive affect is strongly related to increased well-being (e.g. Fredrickson, 2000; Fredrickson & Joiner, 2002). Thus, it is expected that individuals who demonstrate a disposition towards positive affectivity are more inclined to experience higher levels of subjective well-being.

Method

Participants

Participants in this study consisted of full-time working professionals over the age of 18 in white collar or service industry professions. Using snowball sampling, professionals were recruited through professional networks such as LinkedIn and the New Zealand Psychology Society (NZPsS). Managers and other professional contacts were also approached and asked to forward the link on to employees or colleagues.

The total number of respondents was 189, which makes the sample size sufficient to guaranteeing an appropriate statistical power for subsequent analyses. This was determined by running a power analysis using G Power, which recommended a minimum sample of 138 participants. The sample comprised 68.2% females, 31.3 % males, and .6 % unspecified. The mean age of participants was 32.3 (SD=11.43), ranging from 18 to 64. Participants came from a variety of industries, including Media/Advertising, Accounting/Finance, IT, and Tourism. Participation was voluntary and participants were made aware that upon completion of the survey, they would be unable to withdraw from the research.

Procedure

A self-report, cross-sectional design was used for the present research. Responses were collected at one time point over a 2 month period. In order to recruit participants, invitations to participate in the research along with a link to the Qualtrics questionnaire were posted on several large professional platforms, such as the University of Canterbury alumni association group on LinkedIn, the New Zealand Psychology Society (NZPsS), and the Human Resources Institute of New Zealand (HRINZ). In addition, managers and other professional contacts within several large New Zealand organisations were approached and invited to forward the link to the questionnaire on to other employees in their organisation via work emails or staff

intranet pages. Appendix A depicts the invitation sent to employees emails and appendix B depicts the advertisement posted on the professional platforms, which provided a brief description of the study details along with the survey link.

If the invitation was accepted, participants clicked on the link which redirected them to the questionnaire on Qualtrics, an online survey platform. The questionnaire started with an introduction page which contained the full study details, including the objectives of the study, explanation of the consent process, and the way their data would be used and protected (Appendix C). Incentive to participate was also offered in the form of supermarket vouchers, and information about entry into the prize draw was included in the invitation and introduction pages. Employees were also made aware that the study had been approved by the University of Canterbury Human Ethics committee. Continuation to the next page of the survey indicated participants' consent.

The measures and their items followed on subsequent pages, with each scale separated onto different pages to reduce the effects of common method variance (Spector, 2006). Participants were informed at the start of each scale that the items were about their attitudes towards their organisation as well as their work attitudes and behaviours rather than being given the scale names, in order to avoid interpretation bias. After each measure, a comment box was available for participants to expand on their responses. Following the completion of all the scales, demographic information was collected including age, gender, and industry type. Upon completion of the survey, there was a link to the prize draw page for those who wanted to enter. Participants' names and contact details were collected on a separate webpage to the survey and participants were made aware that personal information would not be linked to their survey responses.

Measures

All variables were measured using a 5-point Likert scale. A list of the full scales can be found in Appendices D, E, F, G and H.

Organisational Learning Culture. To measure employee perceptions of organisational learning culture, a short-form of Marsick and Watkins (2003) The Dimensions of the Learning Organization Questionnaire (DLOQ) developed by Yang, Watkins, and Marsick (2004) was used. This scale included 15 items to measure the following five dimensions of a learning organisation: continuous learning, inquiry and dialogue, team learning, knowledge sharing systems, empowerment. Each dimension consisted of three items. Participants were presented with the questions and were asked to respond on a 5-point Likert scale of 1= almost never true, 2= sometimes but infrequently true, 3= occasionally true, 4= often true, 5= almost always true. The DLOQ has been shown to have good internal consistency with reported coefficient alphas of .71 for continuous learning, .78 for inquiry and dialogue, .79 for team learning, .75 for knowledge sharing systems, .68 for empowerment (Yang at al., 2004). A sample question from the DLOQ is, 'In my organization, I am rewarded for learning'.

Well-Being. To measure employees levels of subjective well-being, a short-form of Tennant et al. (2007)'s Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS) developed by Stewart-Brown, Tennant, Tennant, Platt, Parkinson and Weich's (2009) was used. This scale included seven positively worded items representing mostly aspects of psychological and eudemonic well-being, with few covering hedonic well-being. Participants were presented with the questions and were asked to respond on a 5-point Likert scale of 1= never, 2= rarely, 3= sometimes, 4= very often, 5= always. The SWEMWBS has been used widely and shows adequate reliability, with a coefficient alpha of .84 (Stewart-Brown et al., 2009). A sample question from the SWEMWBS is 'I've been feeling useful'.

Employee Resilience. To measure employees levels of resilience, the Employee Resilience Scale (EmpRes) developed by Naswall, Kuntz, and Malinen (2015) was used. This is a behavioural measure of employee resilience consisting of nine items that captures the contemporary view of resilience as both inherent and adaptive. Participants were presented with the questions and asked to respond on a 5-point Likert scale of 1= never, 2= rarely, 3= sometimes, 4= very often, 5= always. The EmpRes has a high reliability, with a coefficient alpha of .91 (Naswall et al., 2015). A sample item is 'I use change at work as an opportunity for growth'.

Control Variables

Proactive Personality. To measure the extent to which employees possess a proactive personality, a shortened version of Bateman and Crant's (1993) Proactive Personality Survey (PPS) developed by Seibert, Crant, and Kraimer (1999) was used. This scale included 10 items to measure the individual disposition towards proactive behaviour. Participants were presented with the questions and asked to respond on a 5-point Likert scale of 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4=agree, 5= strongly agree. This scale has an acceptable reliability coefficient of .86 (Seibert et al. 1999). A sample question is 'Nothing is more exciting than seeing my ideas turn into reality'.

Positive Affect. To measure the extent to which employees exhibit a mood state of positive affect, the Positive Affect scale from the Positive and Negative Affect Schedule (PANAS-PA) developed by Watson, Clark & Tellegen (1988) was used. This scale included 10 terms to measure state positive affect, however the scale demonstrated high stability ratings (test-retest reliability = .68) This reflects the strong dispositional component of affect and suggests that it may be used as a measures of trait affect (Watson et al., 1988). Participants were presented with the terms and asked to respond on a 5-point Likert scale of 1= never, 2= rarely, 3= sometimes, 4= very often, 5= always the extent to which they generally feel this way. Sample

terms are 'enthusiastic' and 'alert'. The PANAS-PA demonstrated adequate internal consistency, with a coefficient alpha of .88.

Results

The statistical analyses for the present study were conducted using IBM SPSS statistics software.

Reliability and Exploratory Factor Analyses

Prior to testing the hypotheses, exploratory factor analyses were conducted for the DLOQ scale to determine its underlying factor structure. The factor inclusion criteria were eigenvalues greater than one, factor loadings greater than .40, and items loading exclusively on one factor without any cross loading above .30 (DeVellis, 2016; Field, 2013; Shultz, Whitney, & Zickar, 2013). Principal components analysis with varimax rotation was used to establish the dimensionality of the DLOQ scale.

A five-factor structure was expected, as per the five dimensions of DLOQ. However, the scale revealed only three factors with eigenvalues above 1. The results of the analysis are displayed in appendix I. Of the 15 items in the LC scale, all reached the recommended factor loading value of above .4 (Costello & Osborne, 2005). Item 6 loaded on two factors so was removed from further analyses.

As expected, items pertaining to Continuous Learning loaded onto one factor, and items pertaining to Knowledge Sharing Systems loaded onto one factor. Surprisingly, Inquiry and Dialogue, Team Learning, and Empowerment items loaded onto the same factor. A content analysis of the items suggests that all items within this factor pertain to high-involvement practices that encourage collaborative learning and network-leveraging. The decision was made to combine these dimensions into one labelled 'Collective Learning'. The coefficient alphas for the three LC dimensions are as follows: Continuous Learning (α = .76, Knowledge

Sharing Systems (α = .73), Collective Learning (α = .89), all of which were above the recommended lower bound of .7 for internal consistency (Nunnally, 1978).

Reliability analyses were then conducted for the EmpRes scale, the well-being scale (SWEMWBS), the Proactive Personality Survey (PPS), and the Positive Affect scale (PANAS-PA). A reliability analysis of the 9-item EmpRes scale produced a Cronbach's alpha of .79. However, an examination of the inter-item correlations revealed that two items correlated with the other items in the scale below the recommended minimum cut-off of .40 (Loiacono, Watson & Goodhue. 2002). A content analysis of those items revealed that both were related to responsiveness to crises, whereas all other items were related to adaptive, network-leveraging, and learning-oriented behaviours. These two items were removed, and a reliability analysis was conducted for the 7-item scale. Results from the analysis revealed that removing these items resulted in Cronbach's alpha increasing to .80. Therefore the decision was made to retain the 7 items for further analyses.

A reliability analysis of the 7-item SWEMWBS scale was then conducted. The scale produced a Cronbach's alpha of .82. Reliability analyses were then conducted for the control variables. The PPS scale produced a Cronbach's alpha of .84, and the PANAS-PA scale produced a Cronbach's alpha of .87. Overall, all of the seven scales had adequate internal consistency estimates, with Cronbach's alpha ranging from .73 to.89 (see Table 1).

Table 1. Summary of Descriptive Statistics, Correlation Matrix and Internal Consistency values

Variable	M	SD	1	2	3	4	5	6	7
1. Collective Learning	3.54	.72	(.89)						
2. Knowledge Sharing Systems	3.24	.89	.64**	(.73)					
3. Continuous Learning	3.83	.77	.68**	.62**	(.76)				
4. Employee Resilience	4.16	.51	.46**	.37**	.52**	(.80)			
5. Well-being	3.57	.59	.51**	.32**	.48**	.48**	(.82)		
6. Positive Affect	3.57	.59	.43**	.25**	.34**	.53**	.66**	(.87)	
7. Proactive Personality	3.65	.51	.30**	.16*	.25**	.46**	.42**	.46**	(.84)

Note. **Significant at p<01, *Significant at p≤.05. Cronbach alpha values (α) displayed on the diagonal.

Correlational analyses were conducted to determine the associations between the study variables. The results of this analysis displayed in Table 1 revealed that all three LC dimensions were positively associated with well-being and resilience (p <.01). Results also revealed that positive affect and proactive personality were positively and significantly associated with the LC dimensions. None of the correlations between variables exceeded .70, which would signal multicollinearity (Billings & Wroten, 1987).

Hypothesis testing

To test the study's hypotheses, multiple regression analyses were conducted for both well-being and employee resilience, with missing data treated with listwise deletion. Collinearity statistics, such as VIF and tolerance levels, were computed to further investigate issues of multicollinearity. Assessment of multicollinearity revealed low VIF and tolerance levels in all variables. VIF levels ranged from 1.29 to 2.08, which were under the threshold VIF value of 3

(Bowerman & O'Connell, 1990). Results of the multiple regression analysis are reported in table 2.

Table 2. Results of regression analysis testing learning culture dimensions on well-being and resilience, controlling for individual differences.

Model	Well-Being					Resilience				
	B	SE	p	VIF		B	SE	p	VIF	
1 (Constant)	.63	.29	.03			1.91	.25	.00		
ProactivePersonality	**.22****	.08	**.01**	1.22		**.27****	.07	**.00**	1.26	
PositiveAffect	**.60****	.07	**.00**	1.22		**.35****	.06	**.00**	1.26	
R2					.47**					.34**
2 (Constant)	.19	.29	.49			1.50	.24	.00		
ProactivePersonality	**.18***	.07	**.02**	1.24		**.23****	.06	**.00**	1.29	
PositiveAffect	**.49****	.07	**.00**	1.39		**.26****	.06	**.00**	1.44	
LC_CollectiveLearning	.13	.07	.07	2.24		-.01	.06	.84	2.46	
LC_KnowledgeSharing Systems	.00	.05	.99	1.82		.03	.04	.55	1.91	
LC_ContinuousLearning	**.13***	.06	**.03**	1.92		**.22****	.05	**.00**	2.08	
R2					.55					.45
R2 Change					.07**					.11**

Note. **Significant at p<.01, *Significant at p<.05

Firstly, proactive personality and positive affect were entered into the regression model to determine the variance in well-being explained by the control variables. The total variance in well-being explained by proactive personality and positive affect was 47%. In step 2, the learning culture dimensions were added to the model to determine whether they accounted for unique variance in well-being. The addition of the LC dimensions resulted in a 7% increase in the variance accounted for in well-being, adding significant predictive value to the model.

The regression table shows that the increment in variance explained can be attributed to the Continuous Learning dimension (B=.13 p < .05). Therefore hypotheses 1a was supported. Hypotheses 1b, 1c, and 1e predicted that Inquiry and Dialogue, Team Learning, and Empowerment would be positively related to employee well-being. The regression analysis showed that Collective Learning, the new composite variable representing these three

dimensions, was significantly associated with well-being only at the less stringent significance level of .10 (B=.13 p=.07). Hypothesis 1b, 1c, and 1e were therefore not supported. Hypothesis 1d predicted that Knowledge Sharing Systems would be positively related to employee well-being. The regression analysis showed that Knowledge Sharing Systems was not significant associated with well-being (B=.00 p=.99), therefore hypothesis 1d was not supported.

To determine the variance in employee resilience explained by the study variables, proactive personality and positive affect were firstly entered into the regression model. The total variance in employee resilience explained by the control variables was 34%. The learning culture dimensions were then added to the model in step 2. The addition of the LC variables resulted in an 11% increase in the variance accounted for in employee resilience, adding significant predictive value to the model. As with wellbeing, the significant increase in variance explained here was attributed to the Continuous Learning dimension (B=.22 $p <.$ 01), which supports hypothesis 2a. The regression table showed that Collective learning (B= -.01 p=.84) and Knowledge Sharing Systems (B=.03 p=.55) did not significantly predict resilient behaviours. Therefore, hypotheses 2b, 2c, 2d, and 2e were not supported.

Discussion

Due to a surge of rapid transformations that organisations have faced over the past decades, which have made it impossible to cling to past ways of doing work, the research on learning culture has emerged in an attempt to address these challenges (Marsick & Watkins, 2003). In addition, it is now well-understood that organisations who promote the well-being of their employees and aid in the development of resilient workplace behaviours produce more effective and sustainable business outcomes (Bakker, 2015; Stoke et al., 2018; Van De Voorde, Paauwe, & Van Veldhoven, 2011).

In an attempt to advance the research on learning culture, well-being, and resilience the present study sought to explore whether learning cultures were related to employee well-being and resilient behaviours at work. Specifically, this study aimed to determine whether the internal learning processes inherent of a learning culture, which are manifested at the employee and team levels and are thus more readily identified by and likely to resonate with individuals, would be associated with employee evaluations of their subjective well-being and resilient workplace behaviours.

It was predicted that an organisation's internal learning processes, such as the capacity to create continuous learning opportunities, and encourage team learning and collaboration, would be positively associated with higher levels of employee well-being and resilient behaviours, beyond the effect of individual differences. The overall findings of the study indicated that, when proactive personality and positive affect were controlled for, learning culture positively contributed to both employee well-being and resilience. Though research into the role of learning culture on employees' subjective well-being and resilient behaviours is scarce, these findings are consistent with previous research which has established a positive link between learning culture and employee outcomes such as job satisfaction, adaptive performance, and affective well-being (e.g. Han & Williams, 2008).

Concerning the study's hypotheses regarding the impact of internal learning processes on well-being, findings indicated that continuous learning opportunities were significantly associated with employees' subjective well-being. This finding is consistent with the premise that engaging in continuous learning empowers employees towards self-development, which has been linked to and conceptualised as a dimension of well-being (London & Smither, 1999; McMahan & Renken, 2011; Ryff, 1989). Yet, contrary to hypothesised, collective learning practices such as inquiry and dialogue, team learning and collaboration, and empowerment

towards a collective vision were not significantly associated with well-being. Furthermore, the relationship between knowledge sharing systems and well-being was not supported.

Concerning the hypotheses regarding the impact of internal learning processes on resilience, findings indicated that continuous learning opportunities were significantly associated with employees' resilient behaviours. Again, contrary to hypothesised, collective learning practices were not significantly associated with employee resilience, nor was knowledge sharing systems. These findings run contrary to previous research which found team learning climate to be significantly associated to an individual's adaptive performance (Han & Williams, 2008).

Overall, the results of the current study suggest that certain elements of a learning culture, namely the provision of continuous learning opportunities, are more likely to elicit positive well-being outcomes and promote resilient behaviours than other learning culture dimensions. These findings, along with their implications for research and practice, will be discussed in greater detail below.

Limitations and Directions for Future Research

Several limitations of the current study exist, which must be taken into account when interpreting the findings. Firstly, as the current research relied on self-report data, a number of issues related to the method of data collection should be acknowledged, among which is the possibility for social desirability bias. Social desirability bias refers to the tendency of individuals to present themselves in a favourable light relative to prevailing societal norms, particularly when answering sensitive questions (King & Bruner, 2000; Spector, 1994). Employees may have responded to questions about their emotional states and workplace behaviours in socially desirable ways in an attempt to project a positive self-image and control their self-presentation. To mitigate the risk of social desirability, participants were not provided with the scale labels and construct definitions, and the researcher assured them that responses

would be kept confidential, and that their organisation would not have access to responses at any time point. Despite the limitations associated with self-report data, self-reporting was the most viable method for capturing employees' feelings about themselves and their organisation, which could not be obtained through other sources or observed by a third party (Podsakoff, MacKenzie, Podsakoff & Lee, 2003). Therefore, the use of self-reports were justified in the current study.

Common method variance is another limitation of the study, which occurs when a single rater responds to items from multiple scales in a single questionnaire (Lindell & Whitney, 2001). Common method variance refers to the variance that is attributable to the measurement method rather than the construct the measure represents, and can lead to inflated causal or correlational relationships between study variables (Donaldson & Grant-Vallone, 2002; Podsakoff et al., 2003). To mitigate the risk of common method variance, variables were separated onto different pages of the survey (Podsakoff et al., 2003). Yet, this does not address the limitations associated with a cross-sectional design. A recommendation for future research is to create a temporal separation between the criterion variables (i.e. learning culture dimensions) and the predictor variables (i.e. well-being, resilience, positive affect, proactive personality), which aims to allow previously recalled information to leave the short-term memory, thus reducing the risk that participants will use contextual cues to influence subsequent responses about attitudes and behaviours (Podsakoff et al., 2003).

In addition to participants' ratings of themselves, ratings of their organisation were susceptible to biases such as the halo effect, where favourable judgements in one area positively influence judgements of other unrelated areas (Thorndike, 1920; Dodd-McCue & Tartaglia, 2010). Such bias responding may be particularly prevalent among senior leaders who may evaluate themselves and the organisation favourably to protect them or the organisation from scrutiny or reputation loss (Coombs & Holladay, 2006). Previous research has found there

to be disagreement between first-line managers and subordinates ratings of learning culture (Hasson, Tafvelin, & von Thiele Schwarz, 2013). These potential biases among senior-level employees may have led to inflated mean scores for the composite variables in the current study.

In an attempt to mitigate the distortion of scores, participants were told that their answers would remain anonymous, and that their open and honest responses were important to ensuring an accurate understanding of their emotional states, workplace behaviours, and work culture could be gained. Participants were also assured that in publishing the research, no individual identities or organisation's names would be made public in order to avoid evaluation apprehension. Nonetheless, this limitation implied possible research directions, such as using a sample of only bottom-line employees to investigate the relations among the study variables.

Future research might also consider comparing managers' and subordinates' ratings of the study variables, in order to determine whether the experience of learning culture differs across roles and managerial levels, and how this may differentially impact well-being and resilience. Comparing these groups could offer valuable information for human resource departments and organisational managers on the provision of leadership and managerial practices for the development of desirable learning culture outcomes. Practices such as dialogue and feedback may increase managers' awareness on how their subordinates view their organisational culture, which may function to close the gap between managers and subordinates perceptions of learning culture, and ultimately operate to strengthen it.

Another potential limitation of the study was the use of a general well-being scale (SWEMWBS), rather than a job-related well-being scale. The current study used the Short Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) to measure well-being, which asked participants to describe how they have felt, in general, over the past two weeks. Such context-free well-being does not take into account the nature of relationships between work

characteristics and well-being (Wilson, DeJoy, Vandenberg, Richardson, & McGarth, 2004), and fails to capture important work-related emotions such as experiences of fulfilment and expression of individual potential, which are fundamental to the experience of job-related well-being (Demo & Paschoal, 2016; Makikangas, Feldt, & Kinnunen, 2007). Measuring participants' general well-being may ultimately limit the viability of the conclusions being drawn about the causal relationships between learning culture and well-being because there is no way of knowing whether high levels of well-being are attributable to work-related factors, or to other extraneous variables outside the work context. The advantage of using job-specific measures of well-being is that the relationships of well-being to job-related antecedents are likely to be stronger because they refer to the same domain, and thus may offer a better understanding of how particular work characteristics affect employee well-being (Taris & Schaufeli, 2015). Future research would utilise a job-related measure of well-being, such as the Job-Related Affective Well-Being Scale by Peter Warr (1990).

Another potential limitation is establishing a nexus of causality. In arguing that continuous learning opportunities were linked to improved well-being and promoted resilient behaviours, it is possible that employees with higher well-being levels were more motivated and confident to engage in on-going learning processes. Further, it is possible that those with higher levels of resilience possess a greater capacity to utilise and proactively develop personal and workplace resources that reflect an orientation towards continuous learning. Wright, Gardner, Moynihan and Allen (2005) caution that inferring causality between HR practices and outcomes is challenging given the difficulties in addressing covariation between the variables, the temporal lag between the variables of interest, and ruling out alternative explanations. Other personal and organisational influences (e.g. social processes, skills and competencies, leadership) may influence the nature and direction of the relationship between learning culture dimensions, and employee well-being and resilience.

Implications for Research and Practice

The current study aimed to explore the associations between learning culture dimensions, well-being, and resilient behaviours, taking individual differences into account when exploring these relationships. To the best of our knowledge, the unique impact of learning culture dimensions on employee well-being and resilience has not been previously examined, and therefore provides valuable contributions to research and highlights the study's value in a practical work context. Despite an abundance of previous research emphasising the value of learning culture in promoting positive performance-oriented outcomes (e.g. Davis & Daley, Rebelo & Gomes, 2015; Skerlavaj, Song, & Lee, 2010), whether specific learning culture dimensions translate to positive individual-level outcomes is an area that has remained scarcely researched.

The current study revealed that when individual differences were controlled for, perceptions of continuous learning opportunities were related to employees' well-being and resilient behaviours, whereas perceptions of collective learning practices and knowledge sharing systems were not. Continuous learning involves organisations providing empowering resources for learning and career development, and embedding them into work so that workers can continually learn on-the-job and grow in their professions (Hall & Moss, 1998; Marsick & Watkins, 2003). It is thought that continuous learning opportunities lead to improved well-being by signalling that the organisation is heavily invested in its employees' growth and development, which motivates employees to engage in a process of self-development and continuous improvement, where they gain a sense of competency, autonomy, and self-efficacy through their self-directed actions (Hall & Moss, 1998; London & Smither, 1999; Ryan & Deci, 2000).

In addition to their impact on wellbeing, continuous learning opportunities may also promote the development and enactment of resilient behaviours by increasing the capacity for ongoing resource generation and utilisation, which aids in developing one's skill set and

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behavioural repertoire. These elements allow employees to adapt and thrive under conditions of uncertainty and complexity (Han & Williams, 2008; Stoke et al., 2018). Such individualised learning processes take the needs of the learner into account, and allow competencies or resources to be acquired that are intended to meet current and emerging work demands (Marsick & Watkins, 2003; Watson et al., 2018).

The fact that only the continuous learning dimension of learning culture showed a positive and significant association with well-being and resilient behaviours can be partially explained by considering levels of analysis. Collective learning and knowledge sharing practices are largely focused on changes to group and organisational-level capacities with the goal of improving team- and organisational-level learning, while continuous learning processes focus on changes to individual behaviour, knowledge, motivation, and the capacity to learn (Kim, Egan, & Tolson, 2015), targeting individual improvement and capability development. Collective learning and knowledge sharing practices, as well as their influence on positive individual and team outcomes, are also highly contingent upon social dynamics (Gubbins & MacCurtain, 2008; Pahor, Skerlavaj, & Dimovski, 2008; Borgatti & Cross, 2003; Wulf & Butel, 2017; Levin, Cross, Abrams, & Lesser, 2002; Levin & Cross, 2004). HR practices focus on improving employees' opportunity, motivation, and ability to access and mobilize one another's knowledge, which impacts upon the social processes that strengthen the learning culture of an organisation (Watkins & Kim, 2018). This suggests the important role of social processes in collective learning and knowledge sharing. However, such processes were not examined or measured in this study. Further investigation into the role of social processes in the relationship between collective learning, and knowledge sharing, and positive attitudinal and behavioural outcomes is needed.

Previous research suggests that organisational-level learning processes such as knowledge sharing practices are related to assessments of performance, while team and

individual-level learning processes do not directly influence these assessments (Gibson, Porath, Benson, & Lawler, 2007; Milia & Birdi, 2010). Further, team-level learning processes have been linked to a range of social outcomes such as group cohesion, team psychological safety for interpersonal risk taking, shared mental models and routines, improved team communication, and knowledge management (Decuyper, Dochy, Van den Bossche, 2010; Farshad & Azizi, 2015; Van der Haar, Seger, & Jehn, 2013)

Together with the evidence from the current study, this suggests a multi-level learning approach where different features of learning culture are uniquely associated with outcomes at different levels of analysis (Lin & Sanders, 2017). For instance, while continuous learning appears to be the feature that predominantly impacts the individual-level outcomes examined in this study, collective learning and knowledge sharing may be reflected on team- and organisation-based outcomes, such as efficiency, group cohesion, and knowledge management. Because collective learning and knowledge sharing focus on more macro-level processes. future research might examine these learning culture features and outcomes longitudinally and across levels of analysis to determine unique effects of learning culture features on different outcomes.

From a practitioner's standpoint, this study encourages organisations to take a multi-level approach to creating and sustaining an effective learning culture, where different features can be tweaked and developed to tap into a range of different organisational processes and outcomes. Organisations who want to develop and improve well-being levels and promote resilient behaviours among employees would benefit from investing in activities targeted at creating and embedding continuous learning and development opportunities into the job. The provision of such continuous learning can be thought to enhance an organisations human capital by contributing to the development of valuable knowledge, skills, attitudes, and behaviours that allow employees to fully participate in and flourish at work.

Beyond continuous learning, the other features of learning culture require further empirical examination in relation to outcomes of interest to organisations. Future research is needed to explore what outcomes the other learning culture dimensions directly tap into, which would contribute to a more in-depth understanding of the learning organisation. This research encourages human resource departments to consider the movement towards a learning organisation as a long-term, multi-stage processes requiring the integration of individual-, team-, and organisational processes, and where a broad range of outcomes at each level of analysis should be measured. What sets this study apart from the previous was that by examining the differential impact of internal learning processes inherent of a learning culture on employee well-being and resilience, clearer and more explicit conclusions can be drawn about the impact of unique learning culture dimensions on individual outcomes.

Conclusion

The current study examined whether internal learning processes inherent of a learning culture would be positively associated with well-being and resilient behaviours, beyond the effect of individual differences on these outcomes. The findings suggest that the provision of continuous learning opportunities is the most effective feature of learning culture for promoting the well-being and resilient behaviours of employees. This study has provided valuable information by extending the extant body of literature on the impact of learning culture to provide new insights into its positive impact on the individual-level outcomes of well-being and resilient behaviours, and revealed continuous learning as the most effective feature in promoting these positive mental states and workplace behaviours. This study offers both theoretical and practical contributions, and suggest that future research should continue exploring the multi-level process and outcome approach to the learning organisation to gain a better understanding of the positive impact of learning culture on an organisation's competitiveness and survival.

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Appendices

Appendix A - Recruitment Email

Are you interested in contributing to a study that seeks to determine how organisations can improve their employees' well-being and resilience through culture?

To whom this may concern.

My name is Jessica Bishop, a student of the Masters of Applied Psychology program (I/O psychology) at the University of Canterbury. I am currently exploring the impact of organisational learning cultures (i.e. cultures that facilitate ongoing learning and capability development) on employees' attitudes and behaviours within the workplace.

I would be very interested in speaking with you further on how (insert organisation name here) could assist me in my research.

However, if you would like to know a bit more information, please read below.

Involvement:
In order to carry out this research, I require 200+ participants to complete a single survey that should take no longer than 15-20 minutes to complete. Participants should be 18 years or over, in a white collar or service industry job, and in full-time employment.

I will require that the participating organisations send the survey link to staff members to ensure anonymity. Survey administration techniques (e.g. via staff email addresses, staff intranet page etc) can be agreed upon according to your organisations preferences. The survey will remain open for employees to complete for 3-4 weeks.
All correspondence regarding the study will be directed back to me, ensuring no added workload for the participating organisations.

This survey will be voluntary in nature, and thus participation will rely on good-will and/or endorsement by the participating organisations.

Compensation:
A prize draw will be offered in acknowledgement for employees contribution to the study, where they will have the option to enter the draw to win one of four $250 supermarket vouchers.

Additionally, if there is a response rate of 100 participants or more, I can provide the participating organisation with an individualised report of the research findings based on validated scales – i.e. levels of well-being, levels of resilience, perceptions of learning culture. Alternatively, if response rates are less than 100 you are welcome to request a summary report of my research findings (including all participating organisations).

If you have any questions, or think you might be able to assist me with my data collection, please feel free to email me at jkb100@uclive.ac.nz, and we can arrange a time to speak on the phone.

Appendix B – Recruitment Advertisement

Are you interested in contributing to a study that seeks to determine how organisations can improve their employees' well-being and resilience through culture?

My name is Jessica Bishop, a student of the Masters of Applied Psychology program (I/O Psychology) at the University of Canterbury. I am urgently seeking participants to complete a very brief (**5-10 min**) survey which will contribute to my research exploring the effects of organisational culture on employees attitudes and behaviours at work.

A prize draw of **1 of 4 $250 supermarket vouchers** will be offered upon completion of the survey.

To be eligible to complete the survey, participants must fit the following criteria:
18+ years old, white collar/service industry profession, full time employment

As you may know, recruiting participants is not an easy job so any help would be greatly appreciated.

If you have any questions or concerns regarding the research or your involvement, please feel free to contact Jessica Bishop (jkb100@uclive.ac.nz) or Professor Joana Kuntz (joana.kuntz@canterbury.ac.nz).

Here is the link to the short questionnaire, along with some additional information about the research and your involvement:

http://canterbury.qualtrics.com/jfe/form/SV_2iBpjyaMBds7zpj

Appendix C – Information and Consent

<div align="center">

Information and Consent

</div>

My name is Jessica Bishop and I am completing this research project as a requirement of the Masters of Applied Psychology program at the University of Canterbury (UC). The purpose of the following research is to explore employees' reactions to organisational culture.

The research hopes to inform Human Resource Development research and practice by indicating how organisations may shape their cultures to support positive employee attitudes and behaviours.

If you choose to take part in this study, your involvement will be to complete the online survey that should take **no longer than 20 minutes to complete**. If you agree to participate in the study, you are asked to carefully read the information provided below before clicking the 'next' option, where you will be redirected to the survey. By clicking 'next', you agree to your responses being used by the researcher at an aggregate level to report results. No personal/identifying information will be collected throughout the survey, which ensures your **responses will remain anonymous**.

A prize draw will be offered in acknowledgement for your contribution to the study, and you will have the option to enter the draw to win one of four $250 supermarket vouchers. If you wish to enter, you will be asked to provide your name and contact details. This information will be obtained using a separate link which will ensure that there is no way of linking your responses to personal information.

There will be no subsequent involvement or follow-up to this investigation following completion of the survey.

By taking part in the survey there is a risk that it may prompt you to experience negative emotions or elicit stress, because questions address potentially sensitive issues concerning your perceptions of your mental states, work behaviours, and feelings about your organisation. While it is unlikely that you will experience significant distress from answering these questions, if you do feel uncomfortable please feel free to withdraw from the survey.
If employees require further assistance, they should contact 0800 LIFELINE (0800 543 354) to speak to a qualified counsellor, or alternatively contact their local GP.

Participation is voluntary. At the end of the survey you will be given the option to "submit" your responses. By clicking here, you consent to your answers being used in the survey and will be unable to withdraw following this.

The results of the project may be published, but you will be assured of the complete confidentiality of data gathered in this investigation. To ensure anonymity and confidentiality, only myself, as primary researcher, Professor Joana Kuntz, as primary supervisor, and Professor Katharina Naswall, as secondary supervisor, will have access to identifying information (provided when entering prize draw) and this will be kept on a password-protected computer at UC. No other parties will have access to the survey data sets. Results may be presented to some of the participating organisations, on request, but on

an aggregated level with no identifying information. The data collected in the project will be kept for 5 years and then safely deleted from any files and servers.

A thesis is a public document and will be available through the UC Library.

The project is being carried out as a requirement of the Masters of Applied Psychology program at the University of Canterbury by Jessica Bishop under the supervision of Joana Kuntz, who can be contacted at *joana.kuntz@canterbury.ac.nz*. She will be pleased to discuss any concerns you may have about participation in the project.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

Appendix D - Shortened Version of The Dimensions of the Learning Organization Questionnaire (DLOQ)

The scale encompasses five dimensions of the DLOQ related to internal learning processes: continuous learning, inquiry and dialogue, team learning, knowledge sharing systems, empowerment.

Scale items:

1. In my organization, people help each other learn (CL)
2. In my organization, people are given time to support learning. (CL)
3. In my organization, people are rewarded for learning. (CL)
4. In my organization, people give open and honest feedback to each other. (ID)
5. In my organization, whenever people state their view, they also ask what others think. (ID)
6. In my organization, people spend time building trust with each other. (ID)
7. In my organization, teams/groups have the freedom to adapt their goals as needed. (TL)
8. In my organization, teams/groups revise their thinking as a result of group discussions or information collected. (TL)
9. In my organization, teams/groups are confident that the organization will act on their recommendations. (TL)
10. My organization creates systems to measure gaps between current and expected performance. (KSS)
11. My organization makes its lessons learned available to all employees. (KSS)
12. My organization measures the results of the time and resources spent on training. (KSS)
13. My organization recognizes people for taking initiative. (E)
14. My organization gives people control over the resources they need to accomplish their work. (E)
15. My organization supports employees who take calculated risks. (E)

Note. Response choices are: (1) Almost never true; (2) Infrequently true; (3) Occasionally true; (4) Often true; and (5) Almost always true. Abbreviations used are: (CL) = Continuous Learning, (ID) = Inquiry and Dialogue (TL) =Team Learning, (KSS) = Knowledge Sharing Systems, (E) = Empowerment.

Appendix E - Employee Resilience Scale (EmpRes)

Source: Näswall, K., Kuntz, J., and Malinen, S. (2015) *Employee Resilience Scale (EmpRes): Technical Report.* Resilient Organisations Research Report 2015/04. ISSN 1178-7279.

Scale items:

1. I effectively collaborate with others to handle unexpected challenges at work
2. I successfully manage a high workload for long periods of time
3. I resolve crises competently at work
4. I learn from mistakes at work and improve the way I do my job"
5. I re-evaluate my performance and continually improve the way I do my work
6. I effectively respond to feedback at work, even criticism"
7. I seek assistance to work when I need specific resources
8. I approach managers when I need their support
9. I use change at work as an opportunity for growth

Note. Response choices are: (1) Almost never; (2) Rarely; (3) Sometimes; (4) Often; and (5) Almost always. Instructions given to respondents included the definitional statement, "Please note that the extent to which you engage in these behaviours depends largely on the resources available in your organisation, not just your choice to enact them."

Appendix F - The Short Warwick–Edinburgh Mental Well-being Scale (SWEMWBS)

Source: Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS): a Rasch analysis using data from the Scottish Health Education Population Survey. *Health And Quality Of Life Outcomes*, *7*(1). doi: 10.1186/1477-7525-7-15

1. I've been feeling optimistic about the future
2. I've been feeling useful
3. I've been feeling relaxed
4. I've been dealing with problems well
5. I've been thinking clearly
6. I've been feeling close to other people
7. I've been able to make up my own mind about things

Note. Response choices are: (1) Never; (2) Rarely; (3) Sometimes; (4) Often; and (5) Always.

Appendix G - Shortened Version of the Proactive Personality Scale

Source: Seibert, S., Crant, J., & Kraimer. (1999). Proactive personality and career success. *J Appl Psychol.*, 84(3).

1. I am constantly on the lookout for new ways to improve my life.
2. Wherever I have been, I have been a powerful force for constructive change
3. Nothing is more exciting than seeing my ideas turn into reality.
4. If I see something I don't like, I fix it.
5. No matter what the odds, if I believe in something I will make it happen.
6. I love being a champion for my ideas, even against others' opposition.
7. I excel at identifying opportunities.
8. I am always looking for better ways to do things
9. If I believe in an idea, no obstacle will prevent me from making it happen.
10. I can spot a good opportunity long before others can

Note. Response choices are: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; and (5) Strongly Agree.

Appendix H - The Positive and Negative Affect Schedule (PANAS)

Indicate to what extent you <u>generally</u> feel this way, that is, how you feel on the average:

1. _____ interested
2. _____ excited
3. _____ strong
4. _____ enthusiastic
5. _____ proud
6. _____ alert
7. _____ inspired
8. _____ determined
9. _____ attentive

Note. Response choices are: (1) Never; (2) Rarely; (3) Sometimes; (4) Often; and (5) Almost Always.

Appendix I – DLOQ Exploratory Factor Analysis

Table F1. Exploratory Factor Analysis of Marsick & Watkins DLOQ scale using Principal Components Analysis with Varimax Rotation.

Item	Factor 1	2	3
1. In my organization, people help each other learn.	.227	.193	**.783**
2. In my organization, people are given time to engage in learning activities.	.231	.246	**.760**
3. In my organization, people are rewarded for learning.	.400	.388	**.513**
4. In my organization, people give open and honest feedback to each other.	**.603**	.225	.313
5. In my organization, whenever people state their view, they also ask what others think.	**.727**	-.043	.343
6. In my organization, people spend time building trust with each other.	**.564**	.259	.520
7. In my organization, teams/groups have the freedom to adapt their goals as needed.	**.641**	.220	.326
8. In my organization, teams/groups revise their thinking as a result of group discussions or information collected.	**.696**	.058	.353
9. In my organization, teams/groups are confident that the organization will act on their recommendations.	**.646**	.449	.158
10. My organization creates systems to measure gaps between current and expected performance.	.300	**.701**	.109
11. My organization makes its lessons learned available to all employees.	.279	**.633**	.387
12. My organization measures the results of the time and resources spent on training.	.011	**.763**	.341
13. My organization recognizes people for taking initiative.	**.597**	.466	.187
14. My organization gives people control over the resources they need to accomplish their work.	**.603**	.448	.135
15. My organization supports employees who take calculated risks.	**.692**	.442	-.036