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USING PRACTICE-OF-INQUIRY AS A STRATEGY IN CHANGING THE WORKPLACE ENVIRONMENT

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Abstract:

Balancing building, technology, layout and furnishings around changing regulatory requirements and staff expectations is challenging. Government directives and changes in department structures add pressure to cost containment and offering suitable workplaces for staff. An ethnographic case study was used to explore the generation of a more collaborative activity-based work (ABW) environment and how behaviours changed towards improved work space utilisation. Drawing on a practice-of-inquiry (Ramsey, 2014) approach around an ABW pilot, semi-structured interviews and a discussion group with participants of the pilot, supplemented by wider participant observation, offered greater understanding of the cultural influence and power dynamics in adapting to an ABW environment. Strategies were developed to engage staff in transitioning to a new hybridised ABW environment workplace, configured around organisational maturity and political influences. Findings conclude that social and cultural aspects of the workplace environment may play a greater part in the adoption of ABW.

Key words: workplace, strategy, practice-of-inquiry, activity-based work, change

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INTRODUCTION

With high cost of providing suitable workplace environments that are productive and flexible enough to cater for the ever-changing department structures of Government in Australia, providing fit-for-purpose buildings are becoming a challenge. Building, technology, office layout and furnishings all need to be suitable for staff to function and service customer expectations. The configuration of office environments have transitioned as technological advances change the way we work. This has offered up greater flexibility in work locations and with it, challenges around data security, technology connectivity, staff safety and relationships; along with disrupting the existing power dynamics between staff and management.

Economic change has transitioned towards greater decentralised delivery models and virtual environments, reducing the need to commute and blurring the work-leisure demarcation. This is pushing organisational leaders from management-by-observation towards management-by-results (Harrison *et al.*, 2004), changing the manager-employee relationship and measurement to result-driven output (Kuan and Black, 2011; Malkoski, 2012; Armstrong, 2014). Greater agility and connectivity requirements have placed pressure on organisations and infrastructure (Harris, 2015). The re-configuration speed aligned to organisational re-structuring and decentralisation has also seen the re-evaluation of property portfolios, both in terms of flexibility of ownership and re-configurability of buildings at short notice.

A case study was undertaken on an organisation faced with decentralised service delivery across vast distances with a number of site leases expiring and no longer fit-for-purpose. The lead-time for refurbishing existing buildings to comply with regulatory, safety and sustainability requirements in addition to the change in employee numbers and their expectations against securing new sites offered an opportune time to review the organisation's property portfolio and way of working. Using a practice-of-inquiry approach (Ramsey, 2014) in trialling a pilot activity-based working (ABW) environment offered the opportunity to not only explore configurations that provide staff with a usable work environment in addressing the physical infrastructure requirements of the organisation before making long-term commitments, with the associated lead time and costs; it also provided rich data around the associated change in work styles and behaviours needed, including any relational or power dynamic impact. In focusing on staff, the research objective of this paper in trialling the pilot ABW environment within an existing building was to explore the impact of the associated necessity to change work styles and how the relational change is impacted by or impacts on the organisational power dynamics.

Beer (1987, p.55) suggests 'practicing managers can learn from concepts and theory developed by academics, while academics can learn from the experience of practitioners on the leading edge of change.' Providing insights into the change experienced by staff in transitioning to a new way of working in a new workplace environment, along with a community-of-practice established to embed individual and organisational learning, a contribution to the organisational academic change community is offered.

THEORETICAL FRAMING

Historic workplace infrastructure changes

Historically, as far back as Frank Lloyd Wright's Larkin Administrative Building in New York built in 1904-1906, technology and innovations such as air-conditioning and steel-framed glass has driven design (Sharp, 1949; Goldman, 2007; Malloy, 2011). Movements within the office environment such as Taylorism in the 1920s opened up the floor plan, creating a standardised workplace, the white-collar factory (Yates, 1992; van Meel, 2000). This evolved to high-rise glass boxes in the 1950s with its open plan centre and glass perimeter management boxes; then onto using air-conditioning and fluorescent lighting to move offices deeper into buildings in the 1960s (van Meel, 2000). The 1960s also saw the office landscape (Bedoir, 1979; van Meel, 2000) where free-flowing information and desk placement, along with no offices, saw staff accommodated together and no evidence of hierarchical order. The action office proposed by Propst (1968) moved away from cubicles to open-plan hinged panels offering design and layout flexibility. By 1978 the hybrid or combi-office evolved, combining cellular perimeter offices and open space with shared facilities to encourage interaction between employees (van Meel, 2000). The rise of personal computers markedly impacted the office environment and associated infrastructure leading to greater open format in the 1980s, with the CoCon-office (Worthington, 1997) and activity-based working (ABW) (Weldhoen, 2003) catering for differing activities across the office. Mobile phones and laptops in the 1990s saw the virtual office evolve further. Internet and email has changed how organisations view work. Process re-engineering around technology to automate functions and trialling working options such as café, home or remote sites through internet connectivity have all been explored (van Meel, 2000; Harris, 2015; Kim *et al.*, 2016).

Workplace configurations have changed over the last century, as outlined in Table 1, towards now focusing on a more agile, activity-based work (ABW) environment. Office buildings have moved from controlled spaces, through open-plan and onto unassigned work spaces. Buildings themselves have become high-rise, with increased use of glass, air-conditioning with infrastructure located to maximise usability.

Timeframe	Layout/impact	Pioneer	Infrastructure configuration	
Late 19 th Century	Offices become synonymous with organisations, separation of ownership and management.	Chicago - high-rise.	Staff housed in unified and controlled space.	
1920s	Taylorism.	Fredrick Taylor.	Open plan with desks facing supervisor, flow of work; managers in offices with windows to supervise. White-collar factories with authoritative control.	
1960s	Glass façade.	US – Skidmore Owings and Merrill.	Air conditioning, fluorescent lighting and suspended ceilings. Offices deeper into building.	
	Búrolandschaft – office	German – Quickborner	Open floor-plan, groups up to 20 people to	
	landscape.	Team.	enhance communication.	
	Action office.	Herman Miller Researchers, Propst.	Open-plan hinged panels → flexibility in design and layouts.	
1970s	Village.	Netherlands - Herman Hertzberger.	Small village of office units for 8-10 staff.	
	Combi-office.	Sweeden - Tengbom Architects.	Cellular glass-partitioned perimeter offices, open space of shared facilities.	
1980s	CoCon-office.		Different office settings allocated to different activities.	
	Smart building – automated heating, air-conditioning and ventilation.	UK – Richard Rogers.	Lifts, stairs and toilets around perimeters, central atrium to draw daylight into floor-plan. Raised floors and suspended ceilings hide cabling.	
1990s	Hot desking.	Example site: Norwegian – Telnor.	Sharing of workstations by more than one staff member. Desk space allocated based on need.	
Mid-1990s	Activity-Based Working 'New Way of Working'.	Dutch – Veldhoen and Company. First site: Interpolis 1997.	Unassigned work and meeting spaces, break out areas. Aim – better collaboration between teams, reduced carbon footprint.	

Table 1: The changing era of infrastructure configuration

Little has moved since the inception of ABW, with more organisations trialling the concept or moving to it as part of the change in property portfolios. With the movement towards leasing rather than owning buildings, organisations are governed by the developed sites available.

Change Management

Implementation teams and management need to understand the human side of change in undertaking such transformational change across an organisation as ABW. Organisational culture and behaviours are impacted. Where not already in place, management must change their management style, along with the associated power dynamic, from eye-of-sight to output-focused.

That is, moving from the management-by-observation towards management-by-results (Harrison *et al.*, 2004).

Moving to an ABW environment scales an organisation, creating fundamental change in the status quo for both managers and staff. In larger or multi-site organisations, this may take years to filter through and may be of such strategic importance as to create its own program. Change management has taken many guises, from Lewin's (1947) model of unfreeze, change and freeze (also referenced to as re-freeze); to Beckhard's (1969) five steps of diagnosis, design, education, training, and evaluation; to Kotter's (1996) eight steps of urgency, guiding coalition, develop vision and strategy, notify change, enhance actions, achieve short-term wins, consolidate gains, and integration into culture. More recently, Jones et al. (2014) offer ten guiding principles of change management, providing a framework to aid leadership and implementation teams on what to expect, engaging an organisation and how they need to manage their own personal change in the process. This later work offers an approach aimed as speedy transformation. Supplementing this with using sensemaking, the 'what is happening' and 'how do I fit into the new role' (Weick et al., 2005; Cunliffe and Coupland, 2012) approach to challenges faced by both individuals and the organisation as the work environment transitions (Vough et al., 2015). Integral to this is effective communication in reducing the uncertainty around change and enhancing the sensemaking, the believability that the change is both achievable and necessary for the organisation's future.

Change leads to the potential impact on power dynamics on how managers, as the leaders, and staff interact and collaborate. When managers understand and support the change process, it is less likely to fail (Appelbaum et al., 2012) and they are able to aid the cultural change needed (Schraeder et al., 2005). Addressing the building design around the social needs of staff in addition to the tasks required, rather than the current enforcement around building constraints (Kim et al., 2015), offers greater support for staff in carrying out their duties. Technology needs to aid the change to rather than drive ABW (Samson, 2013). It is this failure to implement technology and associated behavioural change that have seen ABW fail (Ross, 2011). Expected changes to social networks by staff engaging in ABW (Ross, 2011; Pourzolfaghar and Ibrahim, 2015) must be supported with associated facilities such as technology, desk space, break out areas, and the like. As such, the physical environment must be configured to support the anticipated working style, including personal and group work spaces. Which, in turn, offers increased productivity, physical activity, collaboration and sharing of ideas; even an increase in the awareness of what tasks need to be completed and by when (Time, 2013). This myriad of small wins culminate in supporting the requisite change, increasing energy and commitment, and restricting negative attitudes (Appelbaum et al., 2012).

Power Dynamics and Collaboration

French and Raven's (1959) five-category schema of relational power sources indicate the level of influence as distinguished from power. The five power bases of legitimate or positive, referent that builds loyalty through charisma and interpersonal skills, expert through expertise or skills required by the organisation, reward of a material value, and coercive or negative influence; all have varying impacts on an organisation and the ability to achieve the desired change. Guerroro and Anderson (2011) explored power from an interpersonal relationship perspective, identifying perception or objective power, relational, resource, least interest or dependence, enabler/disabler and prerogative; identifying how each power dynamic impacts the communication within relationships. Whereas Pettigrew (1973), Mintzberg (1983) and Pfeffer (1992) all infer that power institutionalisation and interest group behaviour influence the processes in organisational change.

Understanding the power dynamic, the formal and informal power and who holds it, is fundamental to delivering change. The informal power of influence across the organisation from experience, personality, persuasion, even relationships with peers or other decision-makers can make or break a change initiative. Harnessing this and the associated power of influence in transitioning behaviours rather than directing or coercion creates the environment of greater opportunity of long-term

success. By providing an environment that encourages collaboration and relationship building, it can either break down the walls and power bases in place or use them to enact the change needed. All the while being mindful of the role both institutional and political systems play in organisational change (Boonsta and Bennebroek-Gravenshorst, 1998) through power and influencing tactics.

Messaging that meets the intended audience has a direct impact on the success of the intended change. Using such messaging as a form of power to create meaning (Pettigrew, 1977) for staff, generating the perception, and associated cognition, of such preferences being in the best interest of all, has the potential to culminate in unconscious acceptance. By managing such meaning, new realities are created. Adding participation in design and development of the final work environment harnesses organisational learning and greater acceptance of the change. Through collaborative engagement in sensemaking (Weick, 1995; Weick *et al.*, 2005) and decision making, staff understand their place in the process, taking greater ownership of the outcome. Moving this further to a community-of-practice embeds those changes and further learning.

Collaborative Working Style

Collaboration is seen as the 'mutual understanding, a collective will, trust and sympathy [and the] implementation of shared preferences' (March and Olsen, 1989, p.126). This view differs from the private interest perspective of some, where collaboration may be viewed 'as a process that aggregates private preferences into collective choices through self-interest bargaining' (Thomson and Perry, 2006, p.20). Whereas, Gray (1989, p.5) sees an integrated view where collaboration is considered a process 'through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible'. This integrated version of collaboration was the process encouraged throughout the case study and embedded in the community-of-practice established. It is this collective action that has seen willingness to change behaviours in the work environment offered.

Sayoga *et al.* (2016) identify intangible benefits of increased collaboration and sharing of knowledge, in addition to tangible financial benefits. As personal relationships develop, psychological contracts are established and the associated informal understanding evolves, leading to more formal organisational roles (Ring and Van de Ven, 1994). Staff use a form of negotiation in their interactions between more formal bargaining and their informal sensemaking (Weick, 1995; Weick *et al.*, 2005; Cunliffe and Coupland, 2012) of the situation, leading to a commitment to implement the associated change or action as they understand how they fit in.

Social Relationships

Social relationships vary between generations, of which there are five within Australian organisations. Each generation brings their own expectations and working styles from the Generation X's 'working to live' to the Baby Boomers 'living to work' approach (Cummins, 2012, p.9). These generational differences need to be catered for with differing physical workspaces (Shave, 2011) that align to their working styles.

Having a choice in work style empowers staff (Ward, 2013) and thereby adaptability and motivation. Although a form of territorial mapping of the office landscape, the socio-spatial layout, aligned to the status, position or some form of social hierarchy (Van der Voordt, 2004; Brown *et al.*, 2005; Brown, 2009; Green and Myerson, 2011; Hirst, 2011) may emerge. Middle and senior management need to demonstrate engagement with the new work environment, even when they themselves lose their management status requiring alternate avenues to gain or re-establish their perceived status (Grenness, 2015).

METHODOLOGICAL APPROACH AND RESEARCH SETTING

Research setting

The case study organisation is a state government department providing services to business and the community from over 280 locations across the state. Almost 6,000 employees are organised into

business units, with the state government regularly moving business units in whole or part between different government departments as part of streamlining service delivery. The organisation has undergone continual cycles of reconfiguring the work environment to cater for changes in work group sizes as employees move into and out of the department. This has been expensive, requiring a range of full-time employees dedicated to the constant churn and limited flexibility in generating a more collaborative, inclusive environment. The size of current buildings has resulted in not all employees being able to be located at the one site, creating multiple smaller peripheral sites in a number of regional areas and across the state's capital city.

The organisation has a traditional office for managers and open floor plan configuration for other staff in most locations. A range of high and low screens provide acoustic and privacy, with aisles creating access issues for less mobile employees. Meeting rooms vary in both size and facilities offered.

Some transitional activities have been completed in changing staff behaviours such as installing automated doors and access toilets for employees with mobility limitations, improving electronic record retention that provides records management regulatory compliance and generates a less-paper office, and centrally locating printers with a follow-me-print option that allows staff to send a print job to a central holding electronic folder and then swipe their staff security card to release the print. Progressive rollout of audio visual meeting capability with online booking has reduced the need to travel between sites and other small changes such as automated lighting has realised considerable budgetary and environmental savings. Employees have adapted to these preparatory changes, with many embracing the changeover to laptop computers, providing greater mobility.

Why consider ABW?

With ABW increasing from 28% in 2015 to 66% by 2020 across Australian companies, with an average rate of return on investment of 15 months (Telsyst, 2015), the option needed to be considered. Adding tightening budgetary constraints, pending lease expiry and greater decentralisation required exploration of sourcing larger buildings, better utilisation of the existing buildings or a combination of. ABW offers shared ownership and flexibility around work area selection to suit tasks or activities (Palvalin and Vuolle, 2016). Moving from the historic office and open floor plan configuration towards a more flexible approach opened the thinking towards an ABW environment. Organisational culture and values needed to be refocused in delivering such a workplace strategic direction.

Some managers, as stakeholders, who have worked their way into a dedicated office have seen this as taking away their earnt benefit for the years contributed to the organisation and their career projection. This is one group where resistance to the loss of such a benefit is high and change strategies critical. Another is moving from management-by-site to management-by-output. This fundamental change in how work is delivered impacts both the respective manager and employee, requiring concerted effort in changing mindsets and the associated behaviours. ABW became a strategy for change (Skogland, 2017).

Qualitative Research and Data Collection

'Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning.' (Denzin and Lincoln, 2013, p.17). It is within this context an interpretive socially constructed approach was engaged. According to Easterby-Smith *et al.* (2012), interpretivism views reality as socially constructed, where people give it meaning, rather than objective. Those within the organisation create the facts, reputations and power influence the evolution of acceptance over time (Easterby-Smith *et al.*, 2012). Understanding the impact on employee behaviour in utilising the new layout over measurement or testing an existing model led to an empirical study using qualitative research data over quantitative. This research followed a social constructionist approach that gave staff a voice in the direction being taken (Easterby-Smith *et al.*, 2012; Creswell, 2013) and supported an ethnographic case study (Creswell, 2013; Yin, 2014). Semi-structured interviews from twelve participants, a mixture of managers and staff, evenly split across males and females, with a representation of able and disabled reflective of the employee structure offered varying insights into usability of the layout and how employees adapted to change. Participants were recruited through a snowball process and a global notification of the prototype issued.

Other inputs included structured observations to map use of spaces to provide a behavioural map. Observed use of work spaces at regular intervals characterised employee habits and work space occupancy to provide a baseline to compare with the non-ABW work environment. This was supplemented with informal observation and in a more relaxed approach, eliciting a range of insights. Site visits to other ABW organisations provided learnings from their respective transition, aiding the pilot configuration whilst catering for evident cultural differences.

Progressive coding and theme development of the interview and observational data was critically reflected on by a discussion group, providing a quality check of the trustworthiness of the data and testing within the organisational context.

Using a practice-of-inquiry (Ramsey, 2014) approach in establishing a prototype of an ABW pilot provided an environment to test suitability and adaptation from employees. Insights around the power dynamics, emotions and tensions experienced by staff in use of space was explored through critical inquiry (Rigg and Trehan, 2004; Vince, 2004; Coughlan and Coghlan, 2011; Coghlan and Coughlan, 2015). Active participation through dialogue and inquiry became critical components (Coghlan and Brannick, 2014), as did critical reflection (Rigg and Trehan, 2004; Welsh and Dehler, 2012).

Data Analysis

Each participant was anonymised through the use of M for manager, S for staff and P for implementer, the staff who will be implementing and managing the results. Table 2 provides the demographics of the participants.

Demographics									
Interviewed (not in order)	Interview Participant Reference	Male/ Female	Age Group	Type of Role	Years with Organisation	Disability/ Disabilities			
1	M1	М	26-35	Manager	11	No			
2	M2	М	46-55	Manager	22	Yes			
3	M3	F	46-55	Manager	18	Yes			
4	S1	F	26-35	Staff Member	4	No			
5	S2	F	36-45	Staff Member	3.5	No			
6	S3	F	56+	Staff Member	20	Yes			
7	S4	М	18-25	Staff Member	1	No			
8	S5	М	26-35	Staff Member	6	No			
9	P1	М	36-45	Implementer	13	No			
10	P2	М	36-45	Implementer	4	No			
11	Р3	F	36-45	Implementer	10	No			
12	P4	F	26-35	Implementer	3.5	No			

Table 2: Demographics of participants

Manual coding aided the convergence of evidence from the multiple data sources and exploring the experience of each participant's reality (Strauss and Corbin, 1990, 1998; Charmaz, 2006; Rubin and Rubin, 2012; Strauss and Corbin, 2015; Saldana, 2016). Using open coding to generate base codes then refining into concepts and clustered to create categories or themes provided thick descriptions

(Johnson and Duberley, 2000; Easterby-Smith *et al.*, 2012) that enhanced the validity by providing themes grounded in the data (Strauss, 1987; Strauss and Corbin, 1998, 2015) and further developed with participants (Charmaz, 2006). Further validity was achieved through the use of an independent researcher to provide blind coding of a sample interview to quality check analysis (Nelson *et al.*, 2006).

This coding provided themes, as summarised in Table 3 that offered a description of what was evolving. Potential discussion group participants were contacted to confirm willingness to participate after initial data analysis. This discussion group provided a data interpretation quality check, discussing space use in creating a collaborative activity-based environment and whether this potentially improved space utilisation. A discussion group member had a disability requiring adjustment to ensure optimal learning. Inductive categorisation of concepts or themes that emerged were collaboratively discussed with the discussion group to finalise thinking (Pandza and Ellwood, 2013), data interpretation and identify lessons learnt.

Theme	Codes within	Entries from	Percentage of	
		transcripts	total	
Collaborative work styles	16	458	39.8%	
Change management	29	467	40.5%	
Power dynamics	11	139	12.0%	
Social relationships	6	89	7.7%	
Total	62	1,153	100.0%	

Table 3: Summary of Themes

FINDINGS AND DISCUSSION

Behavioural Mapping Observations

To analyse working styles, a behaviour map was undertaken of how staff spend their working day to provide an insight of staff agile-readiness and the best future working configuration. Feedback dispelled staff perceptions, the workplace myths, on available space utilisation. Findings indicated staff spent approximately 32% on solo tasks and 46% desk utilisation in the non-pilot areas. A follow-up workshop indicated surprise in the results, some challenged, others clearly agreed. Discussion elicited increased awareness of time spent at desk verses using facilities, in meetings, off-site, etc. The pilot area behavioural map indicated approximately 25% on solo tasks and 75% utilisation of the collaborative areas and teamwork. Visually, this difference was not evident with movement between various areas generating its own energy.

Existing metrics indicated 80% individual, 3% collaborative, 3% social, 8% support and 6% client facing across the non-pilot floors as show in Figure 1. Changing to 30% collaborative: meeting rooms, collaborative areas, video conferencing, and innovation or incubation areas; 20% support: social areas, storage, lockers and other utilities; and 50% work spaces: project, individual and co-work desks, quiet areas and an office. This allocation of areas improved the flow of staff movement and use, demonstrating the behavioural impact on power dynamics.

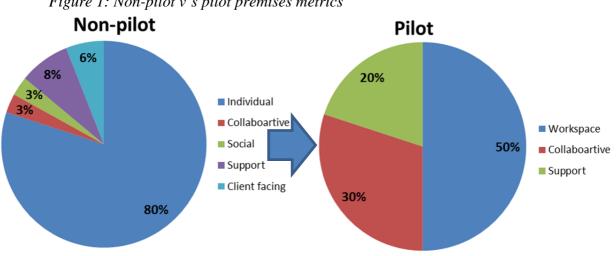


Figure 1: Non-pilot v's pilot premises metrics

Interviews and Informal Observation

Semi-structured interviews commenced with baseline questions around various spaces offered to explore current against changes in the working style and use of: desks, quiet collaborative/breakout, project, meeting rooms, office and innovation; and facilities such as: kitchen, bathrooms and printers. In relation to the physicality of the ABW environment, areas such as the collaborative/ breakout space and meeting rooms were unanimously popular, the majority found the innovation area and printer suitable, kitchen and bathroom facilities confined to existing layouts with limited ability to reconfigure, variability on the project space usability, with the majority finding the designated quiet work space too noisy. Desk space created considerable discussion on size, screens and docking stations provided.

Informal observation via walkthrough and general chats as employees experienced the new work environment offered experiential insights to complement the behavioural observed. Memo/journal notes collated immediately after the walkthroughs to ensure the flow of conversation or observation was not impacted noted how staff appeared to experience differing infrastructure configurations.

Findings around the themes of change management, power dynamics and collaboration, collaborative workstyles, and social relationships follow, drawing on the semi-structured interviews and observations.

Change Management

Change management in the public sector, as this organisation is, can be challenging with variable success, requiring implementation based on the public sector's unique characteristics (Van de Voet *et al.*, 2016) faced. There is a need for leaders to drive change, engaging with staff, rather than assuming staff will transition without an understanding of the context or vision. With the organisation, as with all public sectors, faced with a rapidly changing business environment, covering areas from consumer service provision, technologies, and economic changes (Kitsios and Kamariotou, 2016), staff engagement in the change process took on an air of urgency, driving Kotter's (1996) first step of change management. Providing staff with an overview of what's in it for them, why the pilot and potential long-term change prior to undertaking the pilot offered an insight on how staff react and may either reject or embrace the change. Using this participation-orientation, the social constructionist approach, as part of the practice-of-inquiry strategy provided a greater contribution towards the change success. Articulating the vision and goals of the change, helped staff realise how these intended changes will affect them (Malek and Yazdinifard, 2012), aiding their sensemaking (Weick, 1995; Weick *et al.*, 2005; Cunliffe and Coupland, 2012) of the pending pilot and how their feedback would be incorporated in the final layouts.

The level of push back from staff around simple things such as the type and size of desk offered varied. M1, M2, M3, S1, S2 and S5 all considered desk space small, with limitations around only a single screen on most and no docking stations for laptops. M1 indicated: 'when you move around so

much...having to unplug and plug in again won't work long-term'. A number of other participants had similar views, unhappy with needing to unplug computer connections rather than using a docking station. They felt that without suitable technological support, transitioning to the new way of working would be limited, creating an air of resistance amongst staff. S3 was quite open and animated in responding to the usability of the area, indicating support for the new configuration:

There are standard and adjustable desks across the area...works well. Having a range of empty desks and with computer screens also works well. You can choose where and how you want to work and move to that area. (S3)

Even the meeting rooms received a varied response. From S1 being surprised at the ease of booking rooms, stating: 'I tried booking and it worked!' to a number reflecting ease of using the conferencing facility, M1: 'We could connect power point, use the white board and have a web meeting with another team out west.' de Korte *et al.* (2011), in researching meeting room interiors, found the physicality had a direct impact on creativity and task, optimising results. Due to lack of overall physical space in the pilot area, and the need for audio visual capability to cater for outer regional office communication, this innovation space was provided through a combination of fully equipped meeting rooms and break out areas that better catered for workflow and staff access. Strategically locating innovation break out spaces with interactive screens and variable seating configurations relative to where natural light fell aided ease of use.

M3 offered an insight from someone requiring workplace adjustments:

I can move around easier here and don't have to reach out or up as much. The height's better and the automated door is great. In our regular office area, having to pull on heavy doors is a struggle and people often help. That can be embarrassing but most are polite. (M3)

Providing facilities that suit the needs of staff supports the transition. Taking the cumulative small wins, the increase in energy and commitment became evident (Appelbaum *et al.*, 2012). Noting that transformation becomes an act of power in itself (Avelino and Rotmans, 2009) where staff were choosing to transition to the new way of working, embedding those practices into the culture and creating the new norms. Those embracing or mobilising the change harness the new found power to embed the change, weakening existing power bases. Managers resisting the change in losing their earnt corner office found the wider view of staff unsupportive in the status quo. M1 viewed the loss of an office as more of a way to move staff on and change the culture:

I would miss my office space...but the change in policy is a sign of the times... Not really happy about it but I understand.... Some people will leave because of losing their...office space or desk.... I suppose it's one way to change the culture around here! (M1)

Whereas M2 was aware of the behavioural messages being sent to staff in moving out of a designated space:

That is something I would miss, I'd have to get used to the higher noise levels and use ear covers more often. But this might send the wrong message so I'll need to think it through. It's a cultural issue we are dealing with here. (M2)

M2's view also highlighted an area being worked on as part of changing mindsets: 'You are going to get a lot of resistance. There are a couple of managers who are bad mouthing the whole idea and staff are listening.'

This view of some staff that the leadership team are not on board was further raised by P3, who stated: 'the executive...[are] not on board or maybe don't really support it.' This was reflected across a number of staff with similar comments. Managers need to demonstrate they are on board in their interactions with staff, leading by example. Their perceived power based on their title, or allocation of an office rather than their professional capabilities and influence was being eroded. It is this area of concern that could have the most impact on the change towards ABW. The negative attitude demonstrated by some managers towards the change directly affected the wider commitment to the change (Rogiest *et al.*, 2015; Van der Voet *et al.*, 2016), requiring greater communication and interaction with staff to overcome the perception of resistance and increase

participation. Creating a community-of-practice within the staff and engaged managers as an extension of the discussion group offered traction and a level of bottom-up and middle/top-down implementation. This strategy helped address the increased uncertainty amongst some staff that creates limited commitment to the change (Lou *et al.*, 2016) by increasing the participation in the decision-making process, exchange of information and distribution of communication throughout the organisation. Staff felt they were being listened to.

Power dynamics and collaboration

Politics and power (Clegg, 1975, 1989) can suffocate implementation of change. It can be simply through one-way communication or a lack of communicating the vision or objectives (Kaplan and Norton, 2001) where managers control progress. To succeed, communication needs to be offered in a way that creates a clear sense and shared meaning for staff (Sull *et al.*, 2015). Using the practice-of-inquiry approach enabled the observation of the power dynamics in play.

Having staff willing to readily choose the appropriate area for the task at hand, rather than defaulting to long-held practices, requires a work environment and culture that supports such a transition. Catering for the variability from telephone calls, short informal meetings, more formal discussions/meetings, concentrated reading or work, coffee or food in a break out area, etc all require slightly different workplace infrastructure configurations. The overall configuration needs to also cater for any disabilities without detracting from the aesthetics and usability for all. The infrastructure configuration generated considerable discussion. S3 noted the layout beneficial:

The pilot area has quite wide spacing with a range of adjustable desk locations, automatic doors, clean desk policy and designated storage areas. I like this change, it eliminates the trip hazards that not everyone sees or even thinks about without it being obvious. (S3)

Bauman and Arents (1996) highlight the lack of concentration and distraction of noise in their research on working environments. Similarly, M2 made it clear about not being impressed with the thought of losing an office, particularly around the increase in noise levels impacting productivity:

I had to use ear covers to shut out the noise, it was so irritating. Makes you realise how much you get done in an office away from the staff and noise. (M2)

This poor engagement continued throughout the interview yet M2 became animated in discussing various areas, emphasising how he feels he leads his staff and has taken ownership of the change. This requires further consideration of perceptions against behaviours displayed and how to engage managers in demonstrating the behaviours they feel they are displaying.

M3 reflected the intent around outcomes-based-management:

I know you are looking at total flexibility and I encourage staff to work from anywhere that suits. They know what I expect and they deliver. No matter where we're located. (M3)

During the observation, a significant number of managers moving through the area commented on the potential loss of office long considered something they had earnt and the associated adjustment to being back amongst the noise.

Collaborative workstyles

To enhance collaboration, the integration of routines and culture is needed (Dooley *et al.*, 2013), catering for the geographic distances that may inhibit effective collaboration and knowledge sharing (Balconi *et al.*, 2004). With geographic distance between various staff, the ability to collaboratively work together via audio visual capabilities, drop-in, and central hubs and outer spoke configurations is essential. Within the pilot, in addition to the audio visually fitted out meeting rooms and at computer capability, collaborative/breakout spaces offered a range of different configurations with the aim of providing a range of areas for quick meetings, projects, dealing with issues away from normal work environments, and to encourage creativity or reflective thinking. All participants found the collaborative/breakout space useful and interactive collaboration boards set at a suitable height. S5 highlighted the intent of the area well: 'Staff are willing to come together, work on a topic or

project, then break back out to carry out the allocated tasks.' This was echoed by the three managers.

Similarly groups of employees could work on projects in a designated project room with noise abated by closing the doors. The project space was found useful. M1 stated: 'my staff sat in it like a project team so we all had...desks together,...we...could discuss the work we were doin[g]..., use the boards and then work...together'. M3 had a similar view:

A lot of my team used it working on a project for a week....Everyone working together, bounced ideas, used the progress and ideas board, got the project done, then moved back to the open areas to give someone else a go. (M3)

Staff reporting to M3 appeared more engaged with the concept, tried different areas and moved on to give others the opportunity to experience the area. Discussions were around output delivery, highlighting the approach of the manager concerned. This level of collaborative workstyle encouraged transitioning to the change in environmental layout.

This is similar to Blok *et al.'s* (2009) findings of increased communication and concentration, and Lee and Brand's (2005) improved communication when task facilitating work environments are introduced. Although de Korte *et al.* (2015) and Van der Voordt (2004) indicate greater communication and associated distractions can lead to a reduction in concentration; and Bauman and Arents (1996) emphasise the lack of concentration and distraction of noise in their research. Having designated quiet areas and small one and two person meeting rooms should address this.

One area of concern was the condition meeting rooms were left in. This did not reflect the intended expectation around being collaborative. S3 stated of an otherwise positive experience: 'The only issue was one time the room was left a mess by the group before us.' M1 highlighted this as an improvement area: 'Cleaning up after each meeting...and setting up for the next needs some work'. This reflected poorly on those known to be in the previous meeting, creating conversations between staff, one being particularly animated and claiming others were not showing collaboration in line with the intent of the area.

Social relationships

Four generations work together with differing expectations. As the older generation retire the next generation, who are still in formal education and only know the digital world, will progressively replace them. S4 highlighted the generational difference in the technology use: 'I like the interactive board, it's like really easy to use. The oldies need some help to work it out but that was like fun showing them.' Technological access and expectations, with the associated costs and infrastructure configuration changes, need to be in place that better reflect the changing work environment. Less technology savvy staff need support to transition without them made to feel inadequate. This was reflected in M2 who felt changes were coming quicker as he aged and adaptation harder, but also noted the support provided was beneficial when a concierge staff member:

...offered to show us how to use the interactive board when we were huddling in for a scrum. He made it feel like it was natural to show us and it made the scrum run smoother and me not feel silly in front of staff. (M2)

Staff need to move across the range of activity areas, interacting with each other as individuals, small and larger groups. A cultural practice of containing noise to a non-distracting level will take time, with acoustics placed to soften the noise level. The differing layout to current for staff created higher noise than they were used to. S4 indicated: 'They can like be noisy when people talk and forget. But when they are like quiet they are good. You can think and work like really well.' Communication to reinforce the designated quiet areas was added during the pilot period, with some reduction in noise without impacting social relationships or movement across the various areas.

M2 observed the positive impact on staff in trying out various areas of the pilot site: 'It's exciting in some ways, almost like a kid in a lolly shop. The chatter has been quite loud at times'. From journal notes:

The collaboration and innovation areas are well used, laughter and chatter echo along the side hall/walk way that may need to be addressed to ensure the acoustics are appropriate, I can hear joking from a number of the pods before I reach the staff using them and are met with a few grins when I wonder up to assess whether to join in on the conversation or enquire on feedback. (Journal note)

Observing staff attitudes and behaviours change as they experienced and interacted with the various areas of the pilot indicated initial frustration to then comfort. Some found it confronting with comments such as S2: 'Let me stay in one spot for the day. I don't see why we need to change.' This was, through actions, supported with the observation of establishing territorialism (Van der Voordt, 2004; Brown *et al.*, 2005; Brown, 2009; Green and Myerson, 2011; Hirst, 2011) by setting an area up each morning, branding the immediate desk area with photos, paperwork, stationery, items referred to as 'bling' by S2. In her interview S2 stated:

I don't like moving around. People keep say to me to move around and try things but I like to be in one spot all the time. I moved each day so that should be enough. It takes me time to set up my desk each morning... I don't like it. (S2)

As S2 was not the only staff member to demonstrate this territorial behaviour. Dedicated workzones or base-areas, including the executive support staff, will be piloted, given the current level of organisational maturity. Observation and notes assisted exploring behaviours and what appeared to be staff thinking. Support for the significant change going through, even testing the pilot area, is needed. Understanding this was critical to the next phase of developing change-transition strategies to aid staff in shifting behaviours and thinking in the transition towards the new way of working.

Discussion Group Review

The discussion group explored the findings to provide a quality check of data interpretation against the use of space in creating a collaborative activity-based environment and how they interact with both the environment and each other. We discussed whether this had potential or demonstrated improvement in utilisation of available space, any change in behaviours and the way staff and management interact. The initial hour and a half set down, extended into a second hour as interest in discussing different aspects continued. The resultant outcome requires some minor change in approach and interpretation, with the majority consistent with initial interpretation. This process provided a level of trustworthiness in the analysis.

Of note was the user perspective on transitioning staff, how they would react and support needed. All participants left with a clearer understanding of how they make sense of the change and support of exploring such collaborative working further. One area of note was the need to transition managers to a greater output focus over managing every aspect of staff's work. This group continue as a community-of-practice, exploring various aspects and encouraging others to participate, creating its own learning environment and embedding practices.

CONCLUSION

This paper has explored how individuals and groups of staff respond to a changing work environment from a change management, power dynamic and collaboration, collaborative work styles, and social relations perspectives. The research reveals staff use sensemaking cues (Weick *et al.*, 2005; Weick, 1995; Cunliffe and Coupland, 2012) in seeking to understand the change and how it impacts them, whilst exploring the physicality of the environment. For some, role identity (Ramarajan, 2014) is tightly linked to their personal identify and values, providing their social standing within the organisation. For others, active participation in the new work environment offered development and the opportunity to practice new skills or try new work formats.

Engaging with the valuable insights provided around how staff and managers make sense of the change provides transitioners with avenues to explore in supporting staff through the change process. The findings support the conclusion that social and cultural aspects of the workplace environment may play a greater part in the adoption of ABW that a more directive approach.

In focusing on staff throughout the trialling of the pilot ABW environment, the research achieved its objective of exploring the impact of the associated necessity to change work styles and how the relational change is impacted by or impacts on the organisational power dynamics.

Physical Space and Social Interaction

Establishing a collaboration-sensitive environment through a pilot of a variety of physical and virtual spaces that offered private and group work spaces, and supported social interactions required considerable effort. Offering variable locations for staff that enabled the regulation of unwanted social interactions (Ekstrand and Damman, 2016; Inamizu, 2013; Appel-Meulenbroek et al, 2011) required staff to unlearn old and relearn new norms and values (Grenness, 2015).

This detachment from the old and reattachment to a new workplace (Inalhan, 2009; Inalhan and Finch, 2004) offered the scope for a change in beliefs and mindset; thereby influencing cultural change (Skogland, 2017). Although there is a need to address any social territorialism (Van der Voordt, 2004; Brown *et al.*, 2005; Brown, 2009; Green and Myerson, 2011; Hirst, 2011) that may come into play, such as locating at the same desk with regularity or leaving visible markers (Vos and Van der Voordt, 2001; Brown, 2009; Appel-Meulenbroek et al, 2011), most staff involved in the pilot took the first steps. Further time is needed to invest in building greater collaborative relationships across the organisation by engaging staff (McGillick, 2013) in the change process. Using ABW as a strategic tool (Skogland, 2017) supports this transition.

Future research

Empirically, it was noted there appears to be a level of emotions involved in transitioning between workplace configurations, creating greater resistance and delayed response in changing. Exploration of the depth of emotional response to change may offer greater insights into the change process staff go through and how to support them. The current research offers insights on how staff engage in changing work environments in terms of change management, power dynamics, work styles and social relations. This understanding could be potentially used in other ABW and changing work environments.

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