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WORKING TOGETHER IN THE SPACE-BETWEEN: PEDAGOGY, LEARNING ENVIRONMENT and TEACHER COLLABORATION

INTRODUCTION

For teachers, the arrival of new generation learning environments (NGLEs) may offer the chance to do something that the predominant built infrastructure has discouraged - the opportunity to work together. Learning environment designs that deliberately group teachers, students and learning settings together signal a spatially inbuilt intentionality for teacher collaboration.

However as Blackmore, Bateman, Loughlin, O'Mara, and Aranda (2011) noted, learning environment research has often focused on the design phase rather than on ongoing occupation. As a result there remains an aspirational tone that frequently runs through the design literature, often making the assumption that changes in teaching and learning will occur as a result of new spaces. Consequently researchers and evaluators have called for a better understanding of the way that teachers occupy space, their pedagogical approaches, and the resulting impact on learning. In essence, 'what works?'

The same question also needs to be asked of collaborative teaching spaces. There is a need for a better understanding of the way teachers occupy space *together*, what pedagogical practices are used and with what impact? This space-between pedagogy, learning environments and teacher collaboration therefore forms the heart of this emerging theme. 'What works' *together*?

New space – new opportunities?

In New Zealand these are timely questions. The development of Modern Learning Environments (MLE)¹ in the primary school context has followed a global shift in thinking about the relationship between pedagogy and space. It has been accelerated as a consequence of the recent requirement for considerable investment in educational property (Ministry of Education, 2011). This need for extensive school building and refurbishment was caused not only by Christchurch's earthquakes in 2010 and 2011 but also by considerable urban growth and a wave of 'leaky' school classrooms in need of major refurbishment or replacement. Of the NGLE designs that have emerged recently, many are based on the concept of a group of teachers co-habiting a learning space. Instead of working in isolation, groups of two, three, four or more teachers work collaboratively to design learning and teaching for a larger group of students

¹ Modern Learning Environment (MLE) is the preferred terminology in New Zealand, although is in the process of shifting towards 'Innovative Learning Environments' and 'Innovative Learning Spaces'. For consistency within *Snapshots*, MLEs will now be referred to as new generation learning environments.

Why collaborative teacher spaces? Much of the thinking stems from a need for learning environments to more closely align with the predominant shift from teacher-centred to student-centred practices. As frequently acknowledged, new generation learning environments present opportunities to realign the 'built pedagogy' with contemporary models of learning and teaching (Blackmore, Bateman, et al., 2011; Fisher, 2005; Heppell, Chapman, Millwood, Constable, & Furness, 2004; Lippman, 2010b; Nair, Fielding, & Lackney, 2009). Designing spaces that co-locate teachers potentially offers: first, the ability for teachers to collaboratively plan, work together and share professional development; second, the opportunity for a team approach to lead towards varying pedagogical alternatives; and third, the idea that a team of teachers can better meet the needs of particular groups of students, so that each may receive more attention than when taught by a single teacher (OECD, 2013). Such spaces potentially privilege affordances of student agency, personalisation and democratisation that are now seen as critical to understandings of contemporary learning practice (Deed, Lesko, & Lovejoy, 2014). This contrasts with the control and rigidity that was symbolic of traditional classroom spaces. In making the case for teams of teachers working together, OECD suggests that it is not so much to "totally transform the organisation of learning so that it is unrecognisable, but to develop more complex, flexible arrangements that accommodate the demanding aims that learning environments are today striving to achieve" (p. 72).

In conceptualising school environments that aim to address the limited opportunities offered traditional single teacher 'egg crate' structures the lingua franca of new generation learning spaces is often one of flexibility, mobility, and openness, seeking to break down the walls both physically and metaphorically (Horne, 2004; Lee & Ward, 2013). Such spaces "conjure[s] themes of freedom, openness, personal realisation and creativity" (Barnett, 2011, p. 167). Importantly this stretches beyond the physical and material space to encompass the pedagogical and curriculum spaces too. The suggestion is that such spaces offer to "change students' lives" (Barnett, 2011, p. 168).

Spatially the change of learning environments from classrooms into shared, open, collaboratively taught settings leads undoubtedly, to a re-scaling of space for both students and teachers. (Leander, Phillips, & Taylor, 2010; Nespor, 2004). These spaces may give rise to new levels of mobility (Leander et al., 2010), new proximities (Knoben & Oerlemans, 2006), and new pedagogical possibilities. But new space does not itself cause a shift in pedagogy (Alterator & Deed, 2013), although perhaps as Halpin (2007) observes, it may attract more progressively minded teachers.

Regardless of which teachers inhabit and inherit new learning spaces they will do so differently, according to their own perceived needs and those of their students (Barrett & Zhang, 2009). A move into a new space can therefore only be viewed as a "finished beginning" (p. iv) and a starting point from which adaptations that support successful learning can occur. Over time different teachers with different cohorts of students will move in and utilise the environment, creating modifications and adaptations to suit their needs. This cyclical changing reflects Thomson and Blackmore's (2006) suggestion that design is ultimately a process of 'serial redesign' reflecting school culture, organisation and the practices of both students and teachers.

For those who occupy new collaborative learning spaces, both teachers and students alike, it is ostensibly a generational treading into the 'terra incognita'. With the exception of those who are able to reflect on their experience of open-plan schools of the 1970s and 80s (Cleveland & Woodman, 2009), most primary school teacher's experience of teaching space will have been limited to traditional classroom settings.

But the reality of shared space brings with it multiple questions. What does teaching together look like? What models of team teaching are adopted? How are new spatial opportunities utilised by teams of teachers, and with what effect? What are the implications for teachers in terms of the work they do alone and the work they do with colleagues? How do teams of teachers develop models of constructing this? And ultimately, what are some of the new opportunities, new routines, and new pedagogies that emerge from the spatial possibilities engendered by this reorganisation of teachers?

Understanding what these complex, flexible and inherently collaborative arrangements might look like forms a key component of investigation. Understanding the way that teachers cohabit space, work together, teach together and the processes by which they do so successfully are therefore critical understandings.

A view of space

The recursive nature of geographical terminology in discussing learning spaces should perhaps not be a surprise. Replete with references that describe proximity, interrelationships, settings and spatiality, the use of such themes are frequently encountered in educational and learning space discourse (Sagan, 2011). There is perhaps a conceptual security in discussing learning environments in geographic terms. School places are familiar places.

However as critical social scientists have explored, space may be viewed as providing more than a physical backdrop for social action (Massey, 2005; McGregor, 2004). Instead, from this perspective, space is relational, created through interactions, and consequently, as McGregor (2004) notes, can be both made and remade. For Massey (2005) this recognition determines that that space is inherently always under construction, it is "never finished; never closed" (p. 9), and that it might be imagined as a temporary arrangement at the nexus of the social and the spatial:

Rather, what is special about place is precisely that throwntogetherness, the unavoidable challenge of negotiating the here and now (itself drawing on a history and geography of thens and theres); and a negotiation which must take place within and between both human and nonhuman (Massey, 2005, p. 140).

Massey's conceptualisation of space as iterative and ever-changing is pertinent when it comes at looking at teachers in a shared teaching environment. Making the connection that space is about ongoing negotiations goes some way towards drawing together the 'messiness' of people in changing spatial arrangements. There is messiness about people working together (Gunter & Thomson, 2007), messiness about change (Bland, Hughes, & Willis, 2013; Schön, 1987), and messiness about learning (Sagan, 2011). There is messiness about socio-spatial relationships that

mean component parts cannot be taken and transplanted elsewhere. What works well in one environment will not necessarily work well in another. As Dovey (2010) considers, all places are ‘assemblages’ each one consisting not simply of parts, but of complex interconnections between them.

Schools are already inherently complex places (Bissell, 2004; Nespor, 2004). So new learning spaces bring with them new spatial complexities (Campbell, Saltmarsh, Chapman, & Drew, 2013). Added to this, collaborative teaching situations bring different social affiliations and relationships. So too, teacher innovation and development of new pedagogical practices aligned with so-called ‘21st century’ learning exists in both physical and digital domains (Oblinger, 2005).

Consequently, for a collaboratively taught learning space to be successful, for teacher relationships within them to reach levels of relational synergy (Bolam, McMahon, Stoll, Thomas, & Wallace, 2005; Ohlsson, 2013) that are a characteristic of deep collaboration, there are multiple elements to bring into alignment (Senge, 2006). Despite the acknowledgement that practices may be revisited and revised, in a process of “serial redesign” (Blackmore, Bateman, et al., 2011, p. 37), out of all the messiness and complexity, teachers need to make sense of the situation.

To borrow from Aoki (2003):

Here I recall teachers speak of their pedagogic struggles in the midst of the plannable and the unplannable, between the predictable and the unpredictable, between the prescriptible and the non-prescriptible. Their pedagogical where? - between the curriculum-as-plan and the live(d) curricula. Sites of living pedagogy? (p. 2)

For teachers shifting into new pedagogical landscapes, collaborative and open, there is sense of them occupying the ground somewhere between space-as-aspirational and the live(d) space. The opportunity provided by intertextuality illuminates the tension between possibilities and practicalities. But in doing so new ‘white spaces’ emerge (Cherry, 2005). As Cherry, notes “some of the most exciting and significant forms of creative and innovative effort emerge from the ‘white spaces’ between existing domains of knowledge” (p. 310). Snowden and Boone (2007) contend that complex contexts represent the domain of emergence. The ‘white space’ in question here is the space-between pedagogy, space and collaboration.

Social and spatial implications

If opening up walls and reimagining learning spaces have the potential to “change students’ lives” (Barnett, 2011, p. 168), then by creating collaborative teaching environments that encourage, or necessitate teachers working together, such spaces certainly change teacher’s lives. As McGregor (2003a) asserts, “space makes a difference” (p. 353). Accordingly many new generation learning spaces challenge socio-spatial aspects of teacher’s work and workplaces that hitherto, have been taken for granted (McGregor, 2003a). Teachers have generally worked in isolation with high levels of professional autonomy (DuFour, 2011; Elmore, 2012). Levels of visibility, privatisation, territorialisation (Campbell et al., 2013) and identity (Mulcahy, 2006) that have previously characterised the spaces teachers typically

taught in, therefore become inherently more complex and contested in shared spaces (Deed et al., 2014).

The social aspects of new environments are responsible for part of the complexity. A greater number of teachers equates to a corresponding increased dynamic in relationships (Campbell et al., 2013; Saltmarsh, Chapman, Campbell, & Drew, 2014). Campbell et al. (2013) found that the larger numbers of students in collaborative primary school spaces called for different thinking around pedagogical grouping and organisation. In addition, the management of professional interactions add a second tier of relationships that in traditional settings had been kept spatially separate from the predominant teaching setting.

Hargreaves has long held that teaching is an emotional practice (Hargreaves, 1998; Hargreaves, 2001a, 2001b). His view of the 'geographies' of collegial interactions suggests that supports and threats to emotional bonds between colleagues can result from the "distance and closeness" (1998, p. 508) of physical, personal, cultural, moral, professional and political geographies. Teachers' capacity to work together to solve problems therefore becomes a critical factor. Conflict, as Hargreaves (2001a) notes in his examination of collegial relationships, was the strongest negative emotion experienced between teachers in his study. It "was seen repeatedly as a problem, not an opportunity" (p. 524).

The spatial too, contributes to the complexity triggering a need for teachers to develop more of what Fisher (2004) terms a "spatial literacy" (Woolner, Clark, Laing, Thomas, & Tiplady, 2012). Teachers are in much closer physical proximity (Knoben & Oerlemans, 2006) to each other in shared, open environments, and therefore need to negotiate space, time, materials and authority (Alterator & Deed, 2013; Saltmarsh et al., 2014). The way that teachers consider notions of structure can be "pivotal to the spatial (un)responsiveness of pedagogical practices" (Saltmarsh et al., 2014, p. 12).

Alterator and Deed (2013) determined that on occupation of collaborative spaces teacher's adaptability became an essential quality rather than the nice-to-have in a traditional setting. Flexibility in space and time translated into the need for a willingness to be adaptive to new situations and learning contexts. They noted multiple factors involved in teacher adaptation. It is, "concerned with balancing individual versus neighbourhood space, individual versus social learning, physical versus virtual space, walled space versus transparency, closed versus open, pragmatism versus idealism, and control versus flexibility" (p. 11). Saltmarsh et al. (2014) found that more spatially responsive practices tended to be in evidence where emphasis was put on teachers and learners co-constructing use of space, rather than on more structured approaches such as timetables and routines.

Working together

The development of teams of teachers working together within schools is increasingly viewed as a solution to educational problems regarding quality of teaching, school improvement and outcomes of student learning (Cook & Friend, 1995; Datnow, Park, & Kennedy-Lewis, 2013; Forte & Flores, 2013; Hargreaves, 1994; Hattie, 2012; B. Johnson, 2003; Levine & Marcus, 2010). Teacher collaboration in Professional Learning Communities (PLC) is seen as having the potential to have a significant impact on student progress (Bolam et al., 2005; Hattie, 2012; Vescio, Ross, & Adams, 2008). Furthermore the concept of collective

teacher efficacy suggests that the shared efficacy of a team of teachers is a strong predictor of student achievement (Eells, 2011; Goddard, Hoy, & Hoy, 2000; Tschannen-Moran & Hoy, 2001). However the overlap between the construct of professional learning communities, and the spatial practice of teachers teaching together, has not always been clear.

Enacted through a group of teachers “sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning oriented, growth-promoting way” (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006, p. 223), the concept of Professional Learning Communities follows the hypothesis that “what teachers do together outside of the classroom can be as important as what they do inside” (Stoll et al., 2006, p. 224). In their work on effective professional learning communities Bolam et al. (2005), suggest that PLC exhibit eight key characteristics:

Shared values and vision; collective responsibility for pupils’ learning; collaboration focused on learning; individual and collective professional learning; reflective professional enquiry; openness, networks and partnerships; inclusive membership; mutual trust, respect and support (Bolam et al., 2005, p. i).

Although, as Vescio et al. (2008) note, communities alter teachers’ approach to work, and represent a “fundamental shift in the habits of minds that teachers bring to their daily work in the classroom” (p. 84), teacher collaboration is noted as having traditionally happened ‘elsewhere’. Both temporally as well as geographically the work that teachers have done together has often been dislocated from the primary interface of teaching and learning. The faculty office, the staffroom, and the team meeting, have often formed the preferred sites for collaborative activities (McGregor, 2003b). Often these arrangements have centred on communities of practice (Lave & Wenger, 1991; Wenger, 1998) that focus on sustaining current ‘best practice’ (Bull & Gilbert, 2012).

In reflecting that shifts towards systemic change required not only individual but also collective capacity building, Bull and Gilbert (2012) suggested that PLC, having change as their central tenant, as well as communities of practice, were critical as teachers explored new pedagogical practices in new generation learning spaces. New environments therefore potentially present opportunities for the development of new constructs of geographically in-situ professional learning communities resulting from de-privatised practice (Campbell et al., 2013). Some evidence of this in New Zealand was found in schools that had more open, shared teaching and learning spaces (Bull & Gilbert, 2012).

Collaborative structures

At this juncture there is a slight dislocation between concepts of collaboration and collaborative teaching arrangements within shared learning environments. Physical proximity does not by default translate into professional proximity. Teaching together, according to Hargreaves (2001a) who has written extensively on the subject of collaboration and school culture, “is reputed to be better than teaching apart” (p. 503), with collaboration typically being offered as the opposite of isolation (Hargreaves, 1994; Hatton, 1985; Horn, 2008; S. M. Johnson, 1990; Levine & Marcus, 2010; Little, 1990). However within the context of improved

teaching and learning the relationship between teacher collaboration and outcomes is not linear. One does not necessarily lead to another (Crow & Pounder, 2000; Hargreaves, 1994; Hattie, 2012; Horn & Little, 2010; B. Johnson, 2003; Kelchtermans, 2006; Vescio et al., 2008).

Hargreaves' view that collaboration should be, "spontaneous, voluntary, development-oriented, pervasive across time and space, and unpredictable" (p. 193), has real implications for teams of teachers in shared NGLE. Often such arrangements are predetermined in a way that Hargreaves would categorise as "contrived collaboration" - arrangements that are fixed in time, compulsory, predictable, and consequently frequently subject to micro-politics (Datnow, 2011; Hargreaves, 1994).

Negotiation and dialogue underpin the co-construction of meaning that allows people to journey beyond an individual and therefore more limited view of what is possible (Game & Metcalfe, 2009; Gray, 1989; Roth, Roth, & Zimmermann, 2002). Building on Vygotsky's social constructivist theory, Roschelle (1992) notes that this convergence is achieved through "cycles of displaying, confirming and repairing shared meanings" (p. 237) and forms the 'crux' of collaboration. These shared meanings are in turn subject to review and revision, emphasising that collaboration is as much a journey as a destination (Gajda, 2004). Understanding the nature of collaboration – the work teachers do together in NGLE, and the work they do apart, as well as the way that this is co-constructed, therefore becomes critical.

If new environments present opportunities for new models of in-situ professional learning communities for co-located teachers, the systems and structures that teacher teams develop together to support their collaborative practices are fundamental to successful student learning. Hansen (2009) asserts that, "bad collaboration is worse than no collaboration" (p. 1), and that instead "disciplined collaboration" should be employed – i.e. the practice of knowing when to collaborate (and when not to) - as well as having the disposition and motivation to do so. However, what does this look like in the context of modern learning environments?

Team teaching

Team teaching approaches are viewed as a preferred strategy accompanying new generation learning spaces (Alterator & Deed, 2013; Gislason, 2009), and are consequently experiencing somewhat of a renaissance. As a pedagogical approach, team teaching is nothing new. Although references to such approaches have seen limited exposure in schools since open-plan schools lost their appeal in the early 1980s, they have been seen as one strategy to address concerns over the gap between general and special education delivery models, and as an approach to mainstreaming students (Bauwens, Hourcade, & Friend, 1989). Consequently much of the contemporary literature is situated in the Special Education field.

In describing what team teaching looks like Friend, Reising and Cook (1993) suggest a number of possible arrangements within a classroom setting in which teachers share or divide the class:

- One teach/one observe - one teacher takes the lead while the other teacher gathers academic, behaviour or social data on students.

- Station teaching - the content to be delivered is divided, each teacher taking a responsibility, while students circulate from one station to the other.
- Parallel teaching - both teachers plan the instruction but divide the class into two halves
- Alternative teaching - the classroom is organised into one larger group working with one teacher while the other is teaching a smaller group
- Team teaching - teachers work together and take turns leading a discussion, presentation or demonstration
- One teach/ one assist - one teacher takes the lead while the other teacher moves around the room assisting.

Utilising the six approaches, teachers are potentially able to meet the needs of students with individualised education plans as well as meeting the needs of the other students (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). In making the connection with new generation learning spaces, it is timely to reflect that spatial references are somewhat in absentia in team-teaching literature. The assumption seems to be that these practices are occurring in the confines of a single classroom (Friend et al., 2010), with generally two teachers.

Spatially this provides a contrast to the nature of many NGLE, which have been intentionally designed with a variety of learning configurations in mind. Two models have been particularly instrumental in NGLE thinking in the New Zealand context. Fisher's (2005) taxonomy of learning settings links pedagogical activity to spatial settings. It recognises alternate modalities of teaching and learning activity and varying student group sizes that each offer a variety of affordances. Similarly Nair, Fielding and Lackney's (2009) pattern language conceptualises different settings for different activities. Characterised by the language of campfires, watering holes, and cave spaces, borrowed from, it recognises the role of the formal, social and reflective in configuring spaces. Arguably both of these models place the emphasis more firmly on the learner rather than the teacher. Depending on the setting, a teacher may or may not be present depending on the activity going on. In grouping multiple settings together into a 'learning hub' (Fisher, 2005), individuals and groups have access to a wide range of pedagogical settings. The extent to which existing models of team teaching find cohesion with the spatially "complex, flexible arrangements" (OECD, 2013) required in new generation learning spaces is a relevant consideration.

The gap between concepts of teacher collaboration, pedagogical practice and learning environments, stretching through the socio-spatial landscape, represents a significant gap in understandings of the nature of teacher's practice in new generation learning environments. With extensive investment in NGLE currently underway in New Zealand this is a timely topic (Creswell, 2013, p. 68). A better understanding of the relationship between teacher collaboration, pedagogy and space will help support teacher professional learning in schools adopting collaborative approaches in NGLE.

What is needed?

The study described in this chapter situates itself at the confluence of learning environments and collaborative teacher practice research. It aims to develop a

framework to help consolidate ideas about how teams of teachers operate together within the context of shared NGLE. It is framed by concepts of cohabitation, collaboration and co-construction. It recognises the idea that space is socially constructed (Lebreve, 1991), that teachers make meaning in situ, and that NGLE are the site of multiple complexities. As such each NGLE is an assemblage (Dovey, 2010) of people, materials, space, and the interconnections between each. Utilising a framework developed by Atkin (1996) it aims to extrapolate the effective practices employed by a team of teachers working together in-situ, and to identify the underpinning beliefs and principles that inform this practice. Hattie (2012) notes the importance of teacher belief and ‘mindset’ in impacting student achievement.

The resulting case study and emerging framework will aim to help move towards a better understanding of collaborative practice within new generation learning environments (Blackmore, Bateman, et al., 2011; Saltmarsh et al., 2014), as well as to better understand requirements of relevant professional learning both within school and pre-service.

With this in mind the central question is:

What are the beliefs, principles and practice underpinning effective teacher collaboration in a New Generation Learning Environment and how do they impact on student experience?

The central question is supported by three subsidiary research questions:

- What are the systems and structures that underpin pedagogical collaboration and how do teams of teachers develop them?
- What is the student experience of teacher collaboration in a New Generation Learning Environment?
- To what extent is the physical setting of a New Generation Learning Environment a factor influencing teacher collaboration?

METHODOLOGY

The study takes an ontological position embedded in constructivism. It subscribes to the belief that meaning is not fixed; instead it emerges out of people’s interaction with the world (Sarantakos, 2013). In so doing it subscribes to the notion that constructivism is about “realities and relationships” (p. 37). This finds an underlying congruence with the nature of collaboration as a process as well as product, with space being made and re-made, and practices being the subject of ‘serial redesign’. It recognises the changing nature of collaboration - of interactions between teachers, students and space - as well as acknowledging that these interrelationships are fluid and subject to temporal shift. Additionally it draws on Taylor (2013) in considering the spatially relational implications for case study approaches.

Building an understanding of ‘what works?’ in collaborative NGLE lies at the heart of the approach. As yet, although a growing phenomenon, this model is present in a relatively small number of New Zealand primary schools (Martin & Williams, 2012). Determining which of these form pertinent ‘success case’ models (Brinkerhoff, 2003) constitutes a critical juncture in the early stages of the project.

In deciding which to investigate, the design follows Stake's (Stake, 1995) case study maxim, "The first criterion should be to maximise what we can learn... which cases are likely to lead us to understandings, to assertions, perhaps even to modifying of generalisations?" (p. 4). The three phases of the study are designed therefore to form an iterative data gathering approach (Miles, Huberman, & Saldana, 2014), leading through a process of 'progressive focusing' (Parlett & Hamilton, 1976) towards new understandings.

Taking this lead, the initial phase of the research utilises the expertise of a group of key participants, recruited through professional networks and subsequent 'snowball' strategy (Bryman, 2012). Selected due to their current roles in NGLE leadership, pedagogy and professional learning, the aim is to conduct semi-structured interviews that assist to understand, 1) the background to NGLE in the specific New Zealand context, 2) characteristics of pedagogical practices in collaborative NGLEs seen as successful, and 3) recommendations of NGLE schools regarded as exemplar sites. This builds on the notion of reputational site selection (Goetz & LeCompte, 1984; LeCompte & Schensul, 2010), as well as the practice of identifying and examining practice in exemplar learning environments (Blackmore et al., 2010; OECD, 2013).

The second phase of the study will involve 'snapshot' studies in six of the recommended sites. Using observations, images, and interviews with principals, teachers and students, the intention is to surface themes and directions for further investigation. Images and plans of NGLE spaces will also be collected to assist investigation of collaborative practice and potential relationship with types of learning spaces (Dovey & Fisher, 2014). Based on analysed data those sites considered "most promising and useful" (Creswell, 2013, p. 100) will be selected for continued study.

The third phase of the study will look in-depth at three of the sites. The researcher will spend approximately three weeks with teaching teams, split over the course of several months. Data will be gathered through field journal observations, interviews and documentation. Repeated visits will enable an iterative approach to be followed (Creswell, 2013; Stake, 1995). Return visits for further observations and interviews will also support a reflective cycle. This will ensure that sufficient data has been gathered to provide a strong evidence base for the findings of the research (Flewitt, 2014).

The study builds on the growing recognition of the value of gaining student voice as a key element of learning environment research, following suggestions that children are rarely consulted, or that their views on the matter are not taken that seriously (Blackmore, Aranda, et al., 2011; Flutter, 2006; Halpin, 2007). Taking the view of children as local knowledge experts (Clark, 2010) therefore provides an opportunity for predictive evaluation, to understand student experiences of new pedagogical approaches, teacher interactions, new environments, and how each influences the other (Lippman, 2010a).

The data collected via interviews, focus groups, and observations will be analysed using thematic narrative analysis (Riessman, 2008). Riessman notes that narrative analysis shares some of the hallmarks of interpretive phenomenological analysis as well as grounded theory. Unlike grounded theory where concepts emerge directly from the data (Strauss & Corbin, 1990), narrative analysis allows for prior knowledge and concepts to guide the inquiry at the same time as searching for "novel theoretical insights" (Riessman, 2008, p. 74).

CONCLUSIONS & IMPLICATIONS

The development of learning environments that, in reforming ideas of built pedagogy exhibit intentionality around collaborative teaching practice, may not only hold the potential to change students' lives but also those of teachers. However these are indicative of places at the intersection of multiple layers of complexity.

From a design perspective, understanding the complex spatial, social and material practices in action within a shared NGLE is fundamental. If team teaching and collaborative practices are seen as supporting contemporary pedagogical approaches, how then are these then translated into design principles? The design of learning space can have a bearing on how collaboratively teachers are able to work together (Lee & Ward, 2013). So what are the qualities of built environments that will help to enact this?

From a school perspective, how teachers and students navigate and negotiate socio-spatial complexities in new environments in order to form pedagogical alignments, will determine 'what works', and ultimately how successful each of them can be considered. For now they could be viewed as places-in-becoming (Dovey, 2010). Over time they will be subject to ongoing change as spaces are made and remade (McGregor, 2004), effective collaborative processes reviewed and revised (Gajda, 2004), and as culture, organisation and teaching practices are 'serially redesigned' (Blackmore, Bateman, et al., 2011, p. 37).

In equipping teachers to occupy collaborative spaces successfully, there is a potential need to further develop conceptualisations of professional learning communities 'in-situ'. Caution is required so that it is not assumed that on occupying new collaborative spaces teachers will know what to do. Assumptions about the manner in which teachers approach teaching and learning, as well as their use of space, both individually and collectively, has the potential to lead to design incongruence. In creating spaces for the next 50 years or so therefore, how can the built environment reflect the flexibility and adaptability that will help support teachers transition from the isolated to the collective?

How too can professional learning frameworks help support teachers' understanding of the beliefs and principles underpinning effective pedagogy within collaborative learning spaces? This includes developing not only teachers' spatial and collaborative literacy, but also the understanding of pedagogical practices that help to maximise the opportunities engendered by the provision of new spaces.

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