

## Chapter 13

# The spaces of relational learning and their impact on student engagement.

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In this paper, we are interested in developing a rich understanding of what matters about space, particularly for enhancing student engagement and belonging. We will suggest that this first requires an exploration into the relational aspects of learning in order to begin to model the often complicated and diffuse inter-relationships between its cognitive, experiential and emotional dimensions; and second to explore in more depth how these impact on, and are impacted by, material space. We will do this by first outlining what we mean by relational learning, and by student engagement and belonging. We will then propose a relational understanding of material space, aiming to locate learning environments within the larger ‘space’ of learners’ perceptions and experiences more generally. This will be further explored through analyzing a case study that suggests some helpful pointers. Finally, we will offer an outline conceptual model that aims to locate some of the differing qualities of material space across the various dimensions of relational learning. Whilst this model is proposed not as a solution but as a means of encouraging debate, we argue that developing learning spaces that support engagement and belonging as well as effective learning are an important issue for the higher education sector. This is because evidence shows that students’ sense of belonging has a direct impact on their retention and success (Thomas, 2012).

### **Relational learning, belonging and engagement**

Like Frick, Brodin and Albertyn in this anthology (Chapter xx) we take a relational approach to learning; but here focus more on how to articulate and evaluate the intersections *between* conceptual and material spaces. A relational perspective in higher education, was initially proposed by Ramsden who argued that “it involves inquiry into and reflection on how students learn specific subject matter in particular contexts” (1987: 275). This means opening up the ‘spaces-in-between’ both tutor(s) and student(s), and between all participants and their situation – that is, what

they bring to it, how they behave, what power relationships exist, how they process their experiences, how this connects with the wider educational context etc. Murphy and Brown (2012) also explore a more relational approach to HE pedagogy based on a synthesis of critical theory and psychoanalysis. They argue that by emphasising the inter-subjective nature of learning and teaching and the importance of emotions within it, a relationally centred approach can take seriously questions of trust, recognition and respect at the heart of the academic–student relationship, while also making space for doubt, confusion and relational anxiety.

If such a framework locks together the cognitive, experiential and emotional dimensions of learning, where does belonging and engagement fit? The Higher Education Academy (HEA) defined these qualities when they became key factors for a research project entitled *What Works?* on improving student retention and success:

*“At the individual level ‘belonging’ recognises students’ subjective feelings of relatedness or connectedness to the institution (...). Goodenow (1993b) described sense of belonging in educational environments as the following:*

*Students’ sense of being accepted, valued, included, and encouraged by others (teacher and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual”.*

(Goodenow, 1993b, p. 25, quoted in Thomas, 2012:13)

The report authors then put this in the wider context of one’s ‘place’ in society using Bourdieu’s concept of the habitus (the disposition to act in particular ways based on upbringing – see also Dobozy in this anthology):

*“Students whose habitus is at odds with that of their higher education institution may feel that they do not fit in, that their social and cultural practices are inappropriate and that their tacit knowledge is undervalued, and they may be more inclined to withdraw early.” (Thomas, 2002, quoted in HEA 2012: 13)*

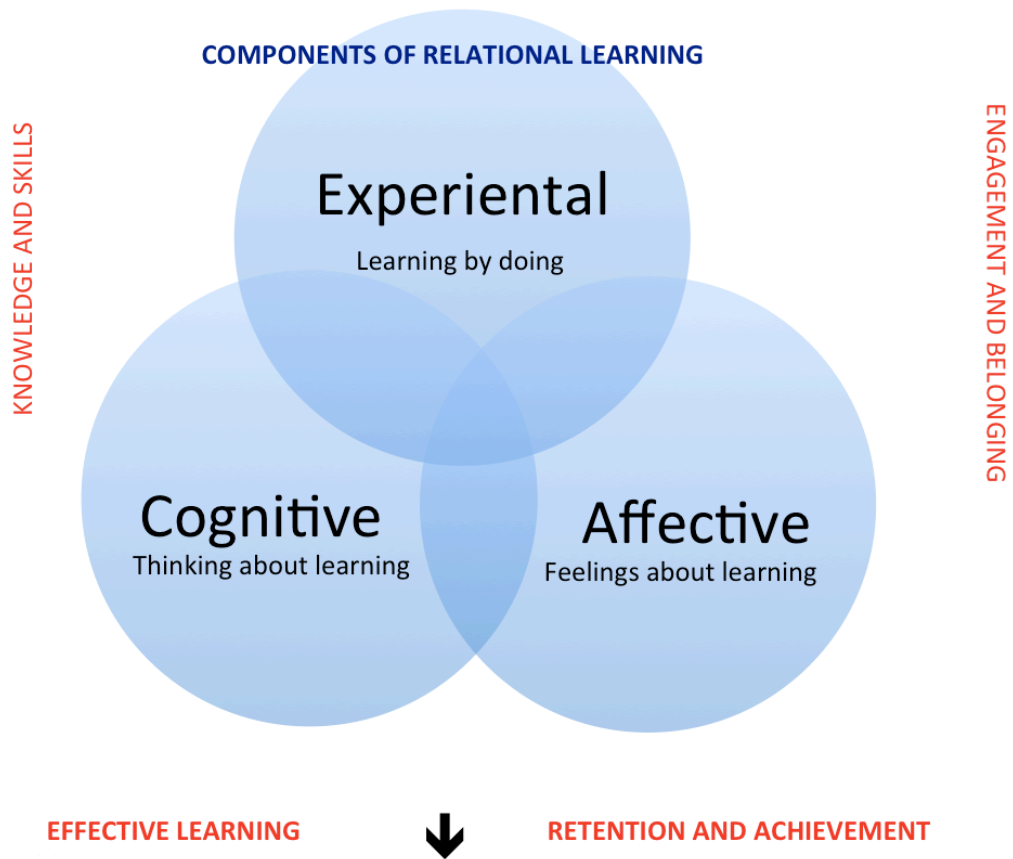
Within this, engagement is about the development of relationships with others and the connectedness it promotes:

*“The engagement literature (...) uses a number of lenses to investigate influences on engagement. These focus variously on student motivation, teacher–student interactions, learners*

*interacting with each other, the role of institutional policies, socio-political factors and the role of non-institutional influences such as family, friends, health and employment. While there is no unanimity about what motivates learners to engage, a strongly represented view is that education is about students constructing their own knowledge”.*

(Krause & Coates, 2008, quoted in Zepke et al, 2010:2)

As Frick, Brodin and Albertyn have also noted, it is in subjects such as health that deal explicitly with therapeutic and professional relationships, we can see examples of making explicit what students should expect to get out of their learning relationships; in opening up key, but often unspoken aspects of that relationship such as trust; and in putting in place specific protocols for assessing the effectiveness of engagement. In health and therapeutic contexts, for example, the concept of ‘working alliance’ aims to describe the means by which a therapist and a client hope to engage with each other, and effect beneficial change in the client. It acknowledges the practitioner’s active role in establishing, shaping and maintaining relationships throughout the process of facilitating change. The concept was defined by Bordin (1979) as a collaborative partnership comprising the emotional bond between patient and therapist, agreement on tasks and agreement on goals. A related study by Webb et al. (2011) indicated that stronger alliances were associated with greater symptom reduction. An earlier study noted that client assessments of the therapeutic alliance are more predictive than therapists or observer ratings (Krupnick et al., 1996). This suggests the crucial importance of taking the multiple dimensions of the learning experience into account: and of seeing learning as centrally a negotiated process through time. If our role in tertiary education is to enhance learning, develop cognitive independence and enable students to make connections, we need to develop ideas like the working alliance, as a potential set of approaches and attitudes – of explicit protocols – that intersect between and across pedagogies and the spaces in which they take place. To capture the wider aspects beyond particular formal learning encounters outlined here Figure 1 offers a basic outline of the different dimensions of relational learning.



*Fig 1: The components of relational learning.*

Here, though, we also need to better understand what it is about the material environment that impacts on these forming relationships. The HEA *What Works?* project already mentioned, for example, makes a more general analysis of the specific process through which improved belonging and engagement can be shown to be achieved. Thomas argues that this requires:

- supportive peer relations;
- meaningful interaction between staff and students;
- developing knowledge, confidence and identity as successful HE learners;
- an HE experience that is relevant to interests and future goals.

(2012: 14-15)

Thus, while many of their examples (of different projects, run across a number of UK HE institutions) include a spatial dimension, the project conclusions do not map where or how material (or virtual) space impacts on these suggested areas of focus. This will be what we examine next; first by exploring how to conceptualise relationships between space and the activities that go on it; and second by reviewing a case study that

helps us to see precisely what characteristics of space impact on students' perceptions and experiences of their learning. Finally, we will bring together relational learning and its material space characteristics into an outline model, suggesting what matters about space for enhancing engagement and belonging.

### **What matters about space for learning?**

We began with a brief outline of relational learning, and how student belonging and engagement 'sits' within it, in order to consider some of the richness and complexity of our learning interactions with each other. We have already suggested that this centres on what happens in the *spaces in-between* the learner and tutor, the learners and each other, and the learners, tutors and their environment (its resources and material characteristics). Second, it understands these 'spaces' as an entangled mix of verbal, non-verbal and affective relations, across cognitive, experiential and emotional dimensions, where belonging and engagement are as much 'felt' as consciously articulated. Third, it approaches learning as a dynamic and on-going process, as a process of negotiated relationships build through time and space, across the whole student experience.

Next, then, we want to explore what kind of conceptual framework and research methods might enable us to better understand what matters in particular about space in these processes. In this chapter we want to complement the work of other authors in this anthology who are using methods from across behaviourism and proxemics, (Scott-Webber, Chapter xx), human-computer interactions and affordances, (Bartholomew and Bartholomew, Chapter xx) and from theorists in the social sciences such as Giddens (Strickland, Chapter xx) Wenger (Enomoto and Warner, Chapter xx) Bourdieu (Dobozy, Chapter xx) and Lefebvre (Holtham and Cancienne, Chapter xx). We are especially interested in contemporary methods that articulate space as a relation and as completely entangled between personal, social and material dimensions. This approach is becoming increasingly central in work going on in science and technology studies, in anthropology and in geography (Latour 2007, 2013; Ingold 2000, 2011, Thrift 2008). These theorists start from the understanding that we engage with the material world dynamically and continuously, through our individual perceptions and beliefs and everyday enactments in 'ordinary' social and spatial practices (that is, the un-thought about routines and assumptions about 'how things work.'). Within this framework, tertiary education – like other specialist groupings - has its own particular set of routines, referred to by Wenger as a 'repertoire' (1998), Latour as 'modes of existence' (2013), by Barnett and Coate (2005) as the 'hidden' or 'implicit curriculum' and by Bourdieu (1984) as a habitus. These everyday socio-spatial practices are performed, re-produced, adapted and contested by its many different participants in the educational context through, for example, the curriculum,

teaching methods and equipment, patterns of assessment and timetabling. The material environment is one key way (among others such as body language, rules and regulations etc.) through which such on-going practices become routinised and made concrete. We change space through our affective encounters (Thrift, 2008), just as space changes us, through a process of continual, embodied negotiations. This frames different aspects as interacting with varying degrees of intensity and focus through time as a patterning of cross-flowing currents. Rather than a stimuli-response or cause-effect model that aims to clarify specific variables acting on each other, such an approach sees our relationships with space, objects and others as endlessly negotiated, reinforced and/or adapted through time and space.

Like Holtham and Cancienne in chapter xxx, we have turned to the work of Lefebvre (1991) to help shape a means to explore this complexity. This builds on previous work by Boys (2010, 2011) proposing a layered research method. In this version of Lefebvre's 'spatial triad', analysis takes place via the parallel investigation of three partial, non-comprehensive and overlapping processes that underpin learning spaces. These are:

- educational encounters, practices and repertoires (both conventional and innovative);
- the design of specific learning spaces;
- participant experiences, perceptions and negotiations of both the encounters, practices and repertoires of learning and of the specific spaces in which it takes place.

To add to the complexity, these processes are affecting, and being affected by, the inter-locking dimensions of cognitive, experiential and emotional learning already outlined. What is more, the specifics of a particular learning encounter and learning context must themselves be intersected not only with the 'normal' routines of education (at an institution, within a particular society and culture etc.) but also with the wider educational and life experiences of the individuals involved. These relationships are outlined in Figure 2.

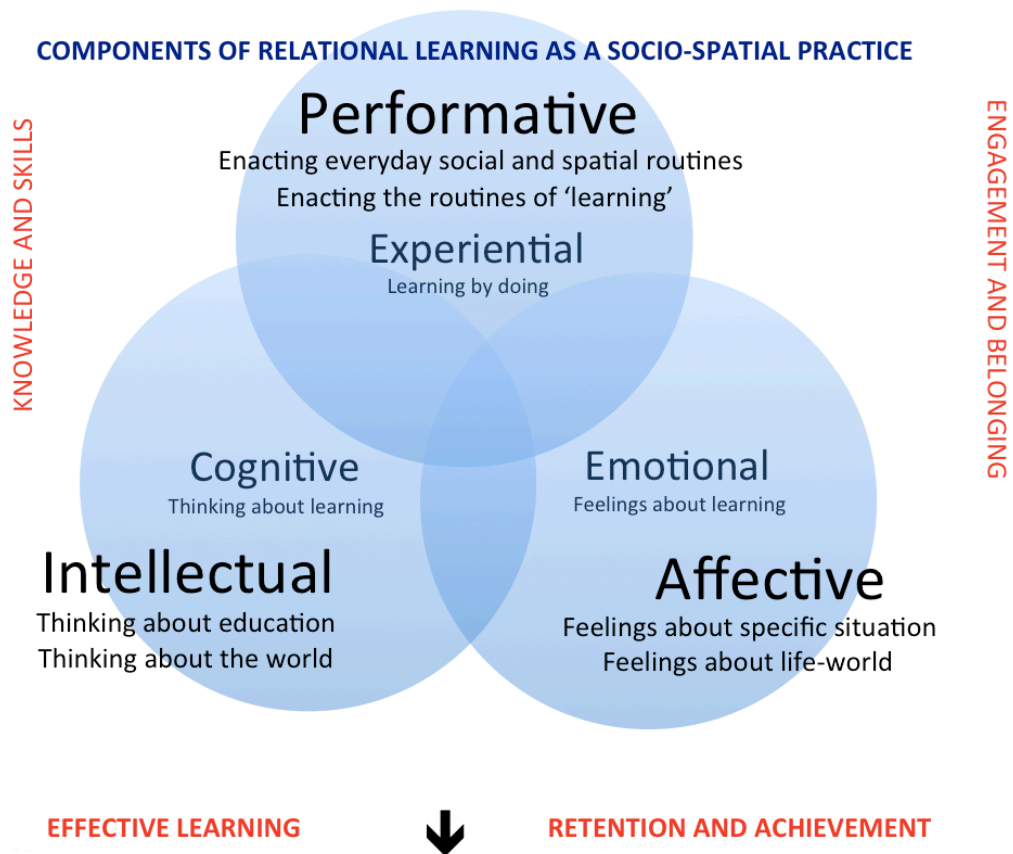


Fig. 2: Components of relational learning as a socio-spatial practice

The aim of the model and method offered here is to capture the richness of such complicated and diffuse inter-relationships, whilst also enabling robust and usable results. Each of the aspects it opens up are always situated in relationship to both particular places and people; and no aspect is obvious, congruent or complete, either on its own terms, or with others. These never align (or do so only momentarily) so that the resulting pattern is what Geertz (1973) famously called a 'thick description'; that is, it is a rich and layered account that does not result in a 'solution' or conclusion, but can illuminate (Parlett and Hamilton, 1972) decision- making.

### **Exploring the impact of space on belonging and engagement**

An example of the kind of insights this can offer is illustrated by the findings of a case study undertaken by Clare Melhuish (2011a) that investigated three new, specially designed spaces at two UK universities. We would like to suggest that work of this kind can help elucidate:

- the concepts and terminology participants use in connecting their personal, social, educational and material experiences;
- what it is that matters about space for students' feelings of belonging and engagement;
- what kinds of changes to university space can improve student

belonging and engagement.

In her study Melhuish started from a grounded theory approach (Glaser and Strauss 1967), that is, she aimed to uncover appropriate categories *from* the data she collected – rather than the more usual *visa versa* - through a process of rigorous data sorting, coding and analysis. Through focus groups and observations of both teaching sessions and the material spaces themselves she concentrated on the spatial, material and sensory qualities (furniture and spatial layout, lighting, smells, colour and sound), technological infrastructure, and perceived status and image. Crucially each of these aspects was interpreted by students and staff in terms of what they brought to the experience, together with their expectations of learning, and of the spaces in which it was assumed to take place. The material characteristics were *relational* to both people's perceptions/experiences, and their simultaneous cognitive, experiential and affective modes of learning. For example, Boys has suggested elsewhere that the beanbag – and similar bright, relaxed types of furnishings - has come to 'stand for' (be a symbol of) informal learning (Boys, 2009). New learning spaces that use these kind of fittings are then assumed to be collaborative and innovative. But Melhuish's study showed that our interactions with built space are much more complex than this, even in response to the simple act of changing how you *sit* to learn. One of the spaces (Fig 3: InQbate Creativity Zone, University of Sussex) was a pure white technology-rich space, furnished mainly with white beanbags. As Melhuish writes:

*“They seem to prompt more spontaneous and playful behaviour during teaching sessions, perhaps because of the smooth floor surface which makes them good for sliding on (...) In this case, the student group in question is described by a tutor as having a ‘macho dynamic’, and ‘almost not grown-up enough to use the beanbags’.”*  
(Melhuish, 2011: 87)

In another of the spaces (Fig 4: CETLD, University of Brighton), the furniture was set out in a café layout, with designer chairs. Here, rather than 'playful' the space was perceived as 'civilised', generating a different kind of informality:

*“When I first saw the space my impression was it looked like a cafe or something because of the tables and the mix and the funny chairs, and I thought, that’s a bit strange. But... it does actually encourage you to relax”.*  
(Melhuish, 2011: 88).



Yet at the same time, furniture that clearly looks designed, and not typically academic/institutional, was experienced as both aspirational and intimidating by the users interviewed:

*“One student describes it as ‘so modern... I want to come up with innovative ideas here’, and another concurs, ‘it seems more modern here, not just the interior, but also the way of working here seems more millennium-ish’. But another perceives it as daunting: (...) ‘it seems very sort of modern and creative and innovative... I sometimes feel slightly pressured into being creative and I’m not really...”*  
(Melhuish, 2011: 88)

What different students ‘read off’ these spaces depended crucially on what they thought learning should be ‘like’. In some cases, beanbags were seen as inappropriately childish, in others as nicely comfortable. Both kinds of furniture aimed to support informal learning, but embodied various kinds of psychological impact for different students, across both negative and positive emotions. Some students were made to feel more connected (belonging, engaged), others less so. Studies like this therefore show first that the effects of a learning space cannot just be ‘read off’ its design but must always be examined through the spaces-in-between environment and participants; and second, that there is no ‘correct’ learning environment; rather that decision-makers need a better understanding of the interplay between participants in a space, and the cues they take from it.



*Fig 3: Centre for Excellence in Teaching and Learning through Design (CETLD) learning space, University of Brighton, UK. Photograph: Clare Melhuish.*



*Fig 4: InQbate learning space at University of Sussex, UK. Photograph: Clare Melhuish.*

The second important point from Melhuish's findings is that the students she interviewed were well able to 'read' space through sophisticated and multi-layered perspectives. They both seamlessly integrated the cognitive, experiential and emotional dimensions of their learning experiences in their responses; and made comments that simultaneously dealt across their local learning encounters, their educational experiences more generally, and their interpretations of both institutional identity and the wider educational context. For example, students were well aware that the learning spaces being researched in this study were special and different to the 'normal' environments of lecture hall and seminar room; and were part of an institutional as well as pedagogic agenda, that is, were also about how the universities were attempting to 'position' themselves in the wider world:

*“The students reveal that InQbate was used as a key selling point when they came to look around the university: ‘they said, oh there’s this amazing room... you know, the really white, white room’. They believe, ‘that’s the main sort of draw to the university now’. The sheer whiteness of the room sets it apart, and makes it stand out from its surroundings, both physically and institutionally. But, on open day, ‘it was locked and so no-one got to see it. A lot of people were like, oh, we heard about this amazing space that you spent loads of money on and we can’t see it’.” (Melhuish 2010:32)*

Students and staff also 'read' the locations of these spaces within the campus itself – how far away from the main entrance, how well signposted, what kind of décor – as a component in assessing the (often contradictory) 'value' of the facility, and its relevance to them. These kind of complexities in interpreting a particular material space –in this example, bringing together institutional identities and missions, timetabling issues, university and outsider interactions, power relationships, patterns of exclusion and inclusion, size, location and atmosphere of the space, and concepts of 'specialness'– show us two important things. First, space is just one of the intersecting aspects that affect whether and how people feel they belong, and can become engaged in, a particular situation; and second, that the actual qualities of material space *do* have an impact on perceptions and experiences, but that this will vary with both who is in the space, and what they are doing there.

## **Relational Learning, student engagement and learning space design**

As we have already noted, whilst the work of the HEA has produced some important evidence-based recommendations on how universities and

colleges can improve student belonging and engagement – some of which relate to aspects of physical and virtual spaces – the role of space in this process has not been explicitly examined. In this paper we have suggested that it is valuable to develop models of learning that integrate its cognitive, experiential and emotional dimensions, and to begin to unpack where space matters in particular to the difficult, dynamic and on-going processes of belonging and engagement. We have used the findings of Melhuish's (small, pilot) study to outline potential modes of analysis that can capture the considerable richness and complexity of students' perceptions and experiences, yet still provide coherent, robust and comparative terminologies for more explicitly describing and better understanding the inter-relationships between these and the detailed design of learning spaces. We have suggested that this involves both what students (and tutors) bring to their learning and teaching situations, and the kinds of cues and meanings that different kinds of pedagogies and spaces provide. And we have proposed that in order to make improvements to university and college learning spaces we need to develop conceptual models that start from relational learning, and use research methods that can simultaneously examine learning encounters, institutional identities and wider contexts. We want to be able to capture the multiplicity and multi-layered nature of both our 'readings' of, and enactments with, material space; and to locate what matters about material space as one – sometimes important sometimes marginal - component in the whole repertoire of learning.

In addition, if learning and student engagement in tertiary education is increasingly understood to include not only personal, peer and institutional but also beyond-institutional activities (Zepke and Leach, 2011; KWP, 2010), then we need to have better ways to assess these 'soft' outcomes of successful student engagement (Zepke and Leach 2010a), that can then be integrated with, and tested against, the hard data of student retention and completion figures, their levels of achievement at each level, and overall academic success.

The model offered here (Fig 5) is our first attempt to locate the different qualities of material space and its perceptions and experiences in relation to the three overlapping aspects of relational learning as well as to wider socio-spatial practices, informed by our interpretation of Melhuish's findings. Each of these elements is seen as being deeply inter-related, here artificially separated out to enable some degree of rigorous and useful analysis.

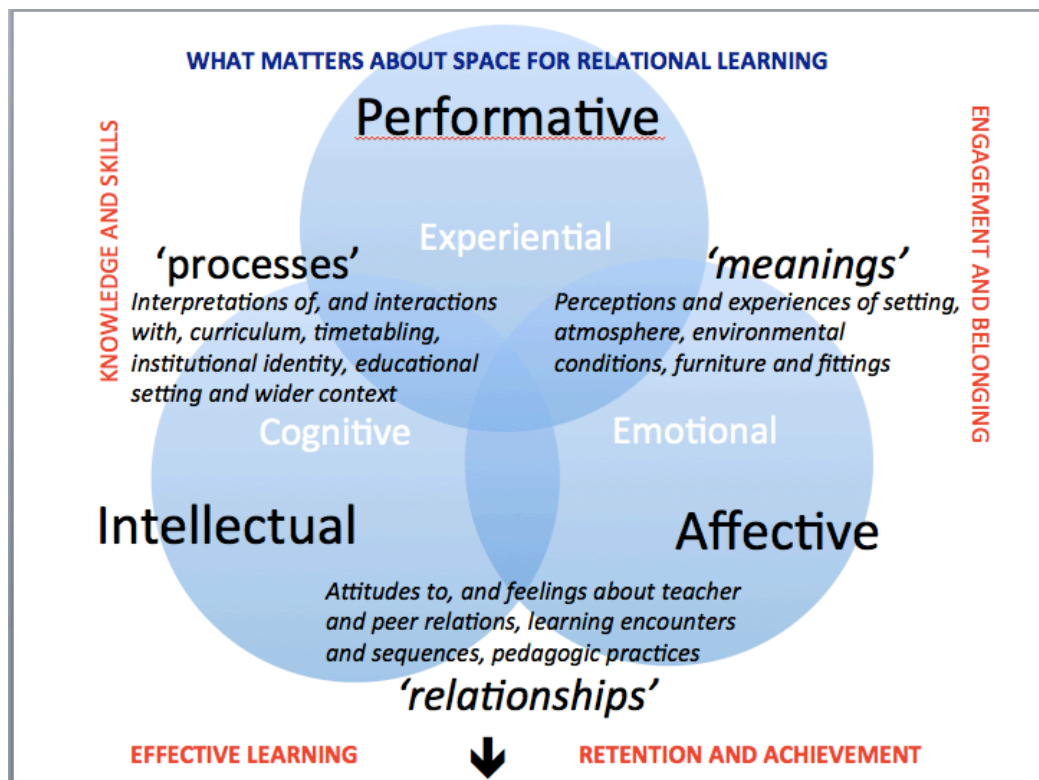


Fig 5: What matters about space for relational learning

In this model, we show how material space can both support more effective learning and can enhance belonging and engagement, across its intersections with the affective and performative, as well as with more explicit – thought-about – understandings of the world. We propose that the affective (emotional, attitudinal) and performative (learning by doing, enacting social and spatial practices) dimensions of learning connect most directly with engagement and belonging. We also suggest that the affective and performative qualities of learning will be most directly impacted on by qualities of the setting, atmosphere, material conditions and resources of a space/spaces – that is the cues material space and its contents gives and what *meanings* these communicate to different participants. At the same time, students will mainly perceive and experience the wider context – the repertoire of education, its curricula, timetables, course, faculty and institutional identity, institutional and educational position within the wider world – at the intersection of their performative and intellectual modes of engagement; that is through enacted and thought-about educational *processes*. Finally, students will interpret their learning encounters, and connections between peers and with tutors predominantly at through their cognitive and affective *relationships*. Melhuish’s work begins to show, we would argue, that what matters about material space is first, in the meanings it communicates as a set of non-verbal, physically experienced ‘cues’; second, in its framing of particular processes (repertoires) in specific ways; and third, in the explicitly thought-about

intersections between our understandings of the world and how it is experienced in everyday life.

There is, of course, need for more research and debate, of which this anthology is a part (see also Boys et al, forthcoming). In addition, we also need to add the 'third' dimension of time to our model; as the student becomes a long-term participant of an institution. We need to understand more about how these intersecting processes change as the learner becomes more experienced, autonomous and research and/or profession oriented. Weller, for example, examines how to lead students to a deeper understanding of their subject and its pedagogy, "to enable students to perceive the transition of their identities as they engage with a field of knowledge that is continually reshaped by a community of practitioners, including their peers and lecturers" (2012: 25). This requires us to learn more about how people's feeling of belonging and engagement change through time, and what this implies not only for the explicit configuring for each level of study of discipline curriculum design, teaching strategies and resources, but also for learning space design.

As we have already outlined, this issue is of considerable importance to universities and colleges. Students perceptions and experiences of their learning environments will affect how they much they feel belonging and engagement with a university, starting from application open days and fresher's weeks, through to beginning study, socialising and accessing student support and other services, and to in developing as a self-directed and independent learner. New students are often not prepared for the diverse range of contexts and learning relationships within their new environment. How does the learner know what, when and how to engage with these new conceptual, physical, virtual, social and personal spaces? Equally, how do we know that learning is being managed, facilitated and mediated to need, at all stages of that development? If identity and expectations for engagement are not clearly articulated or explicitly managed, the unspecified interactional and relationship style is likely to lead to uncertainty and miscommunication. If students early in their learning encounters misread or misrepresent the relationship and interactional tone, this psychological disconnect is likely to be reinforced in subsequent academic and contextual learning encounters. By explicitly attempting to articulate belonging and engagement as a crucial element of learning, and to show how space can have an impact, we hope that higher education will explore further what kinds of learning spaces can enhance the whole student experience.

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