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New communities, spaces and places: inspiring futures for higher education

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Towards aligning pedagogy, space and technology inside a large-scale learning environment

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Background...

- In 2008/09, CCCU invested £35m on **Augustine House** (AH) in response to rapid expansion; exponential rise in student numbers; and criticism in the NSS (due to a lack of core tests and insufficient workspace in the old library).
- In September 2009, Augustine House, an innovative, technology-rich state-of-the-art library and student support centre covering **over 12,000m² of space** was officially opened.
- An important feature of the building was the creation of **flexible social and learning spaces**. It includes: a large atrium, 2 café areas, 2 outdoor terrace areas, a “quiet zone”, 8 private group-study areas, and a 500 seat flat-floor space.
- Joint JISC/CCCU funding was used to develop the **iBorrow Project** which provided **200 thin-client, wireless netbooks** for staff and students to borrow as “*easy as picking up a book from a shelf*”. This complemented the 120 fixed desktop PCs, 5 interactive whiteboards, and 8 50-inch touchscreen wireless computers.
- The iBorrow Project provided an opportunity to understand how **students would use mobile vs. fixed computing devices within a large-scale learning environment working within different individual or group contexts**.
- More information: <http://www.canterbury.ac.uk/iborrow/>

Problem...

“...it remains frustratingly difficult to isolate the impact of a particular learning space or intervention on learner development...” - Collis (2010)

To investigate the extent to which we are able to align pedagogy, space and technology effectively so that it can offer rich learning opportunities for the learner within a large-scale learning environment.

Could this, therefore, inform our thinking about how learning spaces and mobile technologies can be seamlessly integrated into curriculum design and whether these could empower or encumber the student learning experience.

Methodology (1/2)...

- **Unit(s) of Analysis**

- Individual CCCU students: *PT, FT, FD, UG, PG, WBL*
- Individual CCCU staff: *Across 5 different faculties/disciplines*
- This study was concerned about the **individuals** who created or used the spatial/technological artefacts which they interweaved around their social/learning interactions within Augustine House.

- **Multi-method approach**

- Triangulation – reduce the issue of “*inappropriate uncertainty*” by collecting and corroborating evidence from more one source
- “*...get a better estimate of ‘the’ answer*” (Robson, 2002)
- Can compare own research with that of others (Hammersley & Atkinson, 1995)
- “*wholly inappropriate*” leading towards “*conflicting & ambiguous results*” (Blaikie, 1991)

Methodology (2/2)...

- **Semi-structured staff interviews (n=5)**
 - Purposefully selected for their experiences and engagement with Augustine House . Academic staff had previously been identified in the iBorrow Project for using AH.
 - **Pros:** flexible; “handpicked” (Cousin, 2009); rich accounts; diverse subject disciplines.
 - **Cons:** time-consuming; perspectives from others; interviewee personal agendas.
- **Online student questionnaire (n=325)**
 - Constructed, piloted and deployed via BOS. Promotion and recruitment through VLE. Opportunity to take part in a prize draw. Entirely voluntary and anonymous.
 - **Pros:** highly standardised information; wide reach; “transparency” (Hakim, 1987).
 - **Cons:** student placements; “contractual & consultative” incentive (Kindon *et al*, 2007).
- **Student narrative inquiries (n=35)**
 - Through the medium of “story-telling”, students elaborated on their usage of AH. Selection was opportunistic based on student availability in AH over 5 consecutive days.
 - **Pros:** identify common themes (Cousin, 2009); rich accounts; word selection.
 - **Cons:** student placements; busy period; “Quiet Zone” students approached differently.

Theoretical Foundation...

- **Constructivist epistemology**

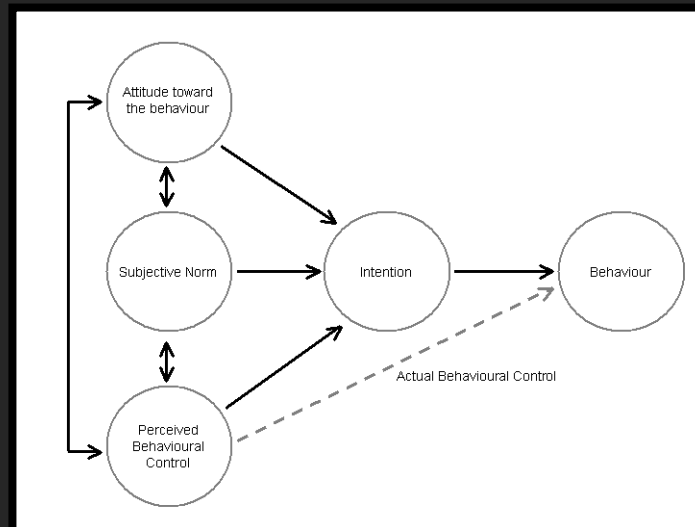
- Facilitates a range of methodologies in an attempt to capture these multiple perspectives.

- **Phenomenological approach**

- Requires multiple perspectives (students & staff) in an attempt to make sense of the complex practices, behaviours and experiences taking place in Augustine House.

- **Theory of Planned Behaviour (TPB) (Ajzen, 1991)**

- A powerful and predictive model that suggests a person's behaviour is not only determined by their own personal attitudes, but is also influenced by social pressures and a sense of control.



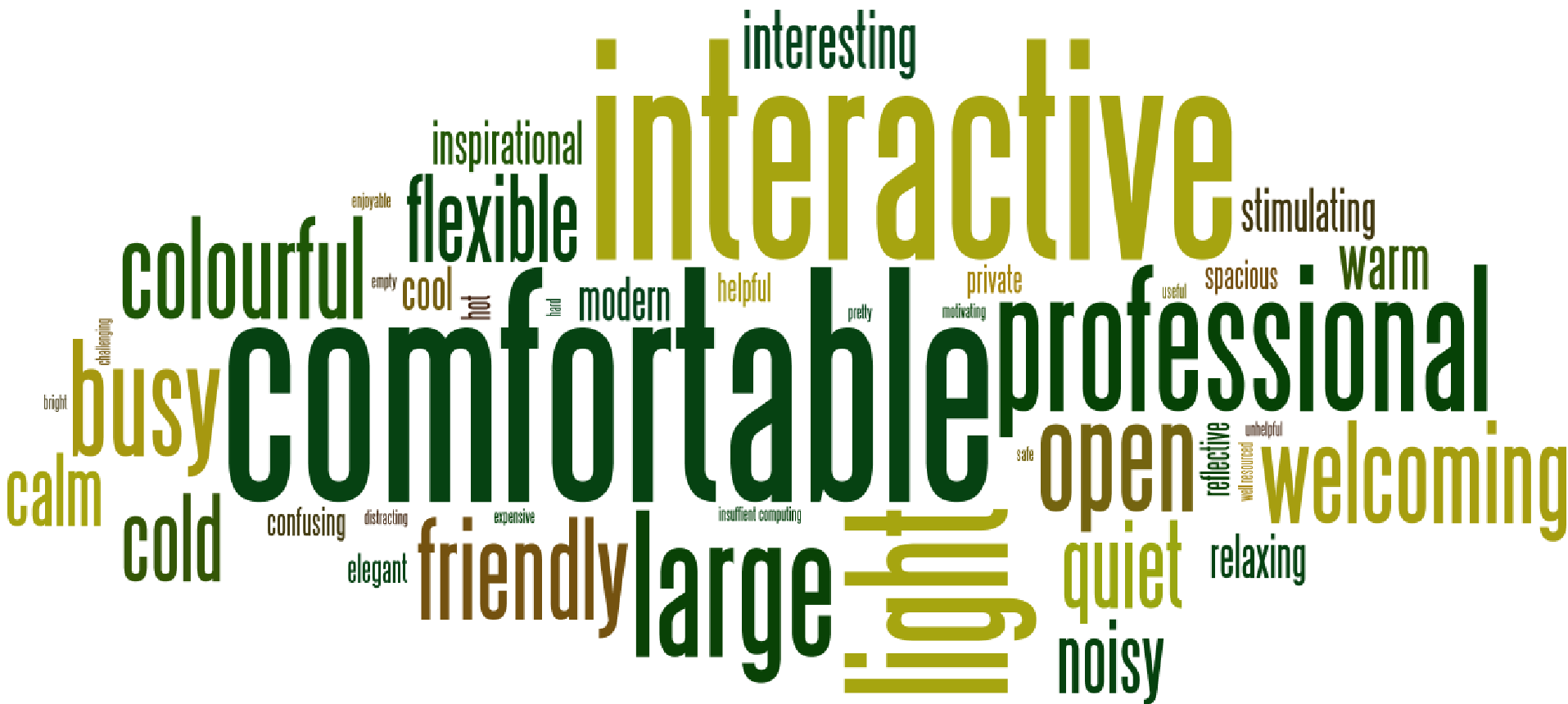
Key Findings (1/2)...

- **“Troublesome Space”**
 - Tutors not having a thorough “mental map” of space.
 - Underestimating the time involved in designing and planning “learning events”.
 - Attempting to control an unpredictable and open “teaching” environment.
 - Challenges existing learning and teaching philosophy.
 - Students uncertain as to what they can and cannot do in certain spatial configurations.
- **“Silent Spaces”** (Behuniak, 2005; Beard, 2009)
 - With Institutions wanting to develop more “collaborative” space, most students (~51%) would prefer “silent” spaces.
 - Most learning activities tended to be of a reflective / individual enterprise.
- **“Shared Vocabulary”** (Ellis & Goodyear, 2010; Boys, 2011)
 - Most students and some staff perceive Augustine House as being “just a library”.
 - The notion of an “academic library” is that of a “receptacle of knowledge” which values quiet, studious behaviour – which is contrary to the open, flexible spaces that promote social and creative engagement.

Key Findings (2/2)...

- “**Channelling Attitudes**”
 - If academic staff wish to engage their students in using the spaces ($r = 0.780, p < 0.001$) and technology ($r = 0.687, p < 0.001$) within Augustine House, they will need to channel their students’ *attitudes* in to developing these patterns of behaviour.
 - It would seem that *space* rather than technology is important to students.
 - Students placed value in seeing their tutors using the different spaces in different contexts – thus, tutors are *modelling* different behaviours and ways of working for their students to learn from.

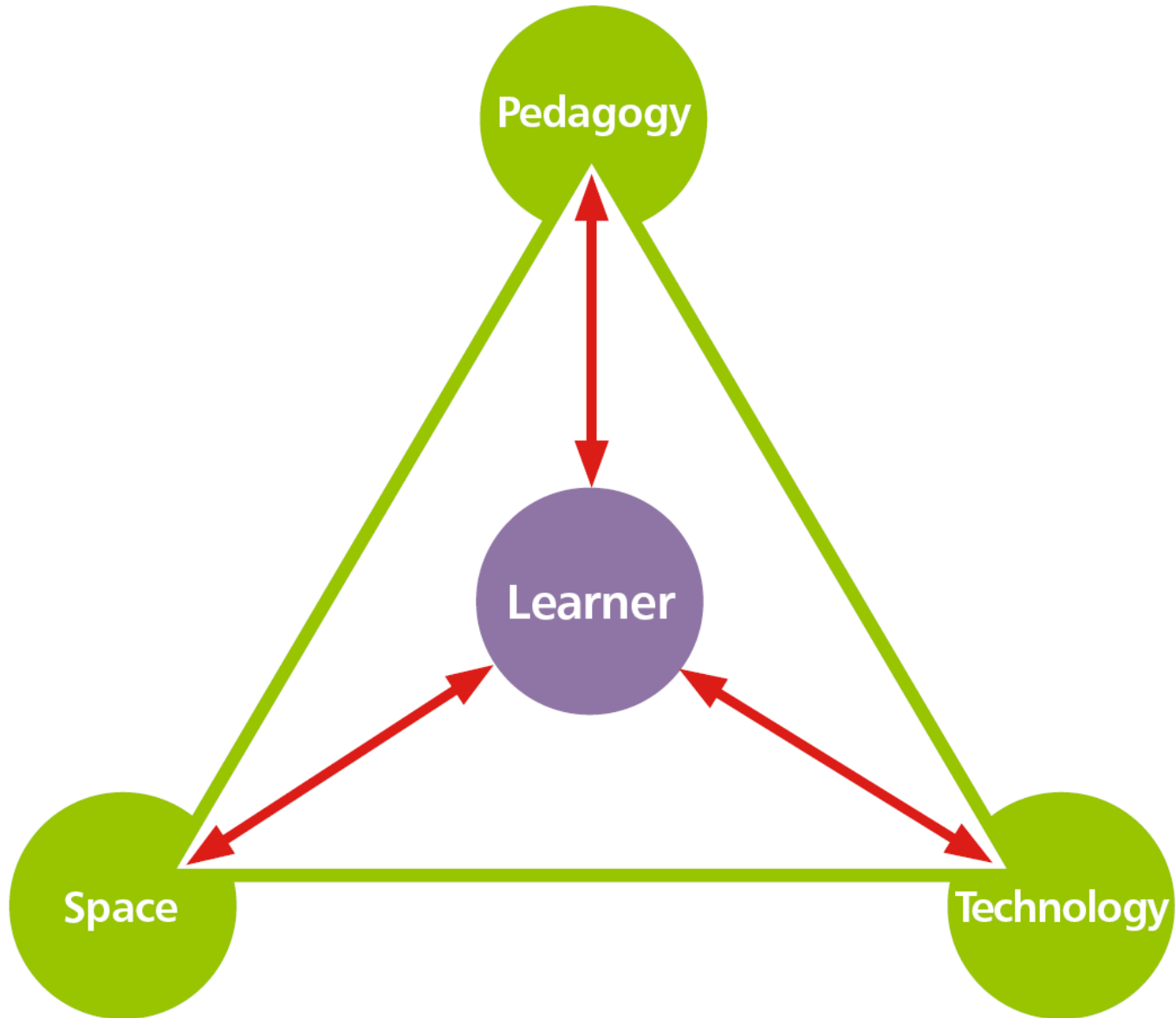
Results from the Word Selection



Implications...

- Whilst flexible learning spaces can provide tutors with a rich and versatile learning environment; they need to be mindful of the **cost** and **effort** in planning and developing authentic learning experiences and encounters.
- Tutors need to make sense of this space through developing a thorough **mental map** of the spaces and facilities available; and to ensure that they and their students have a **shared understanding (vocabulary)** to minimise the risks of *“troublesome space”*.
- Tutors need to have a more palpable and **visible presence** with the learning space to ensure that their students are able to **model** certain patterns of behaviour (i.e. conducting research with a range of sources, both physical and digital) – thus facilitating the development of *undergraduate skills* immediately transferable towards *employability* or *postgraduate opportunities*.
- Professional and staff developers need to explore **sustainable** and **scaleable** ways in which to provide **professional learning opportunities** for staff who wish to work within these learning spaces, which incorporates a blend of *physical* and *digital spaces*.
- Senior management, planners and architects of large-scale learning environments need to ensure a **successful balance** between the proportions of *open, social spaces* and *closed, private spaces* that are made available to students.

The “Elusive Triangle”



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For further information...

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