

Collaborative learning spaces to support engaged pedagogy

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Abstract

This practice-based paper considers the many and varied collaborative learning spaces in the transformed Glucksman Library at the University of Limerick, which opened in 2019. The collaborative, technology-infused learning spaces available to students and staff in UL Library are described and preliminary data on the types of activity taking place in these spaces are shared. Changing technologies, pedagogies and student behaviours necessitate major changes in campus learning spaces, in a shift from traditional classroom style towards interactive, collaborative learning. Academic libraries are leading the way in delivering flexible learning spaces with a strong focus on student-centred design that can be used as a model for transforming teaching and learning spaces on campus.

Keywords

Learning spaces, collaborative space, group space, campus space, active learning, teaching spaces, learning landscape, library design, library planning

1. Introduction

Changes in technology, pedagogies and student behaviours are shifting away from traditional classroom style towards active, collaborative learning. Generation Z students – those who have never known a world without the internet – are social, experiential learners who are used to being always connected to family and friends via communications technologies (Appleton, Stevenson, & Boden, 2011). The shift towards engaged pedagogy in HE teaching and learning emphasises collaboration, creation and student-centred, active learning. Flexible spaces that enable small group discussion and activities are critical if this pedagogical innovation is to be successful (Adedokun, Henke, Parker, & Burgess, 2017; Neill & Etheridge, 2008). This begs the question - where can this participative learning take place? Is the university campus equipped to meet the needs of an evolving teaching and learning strategy?

University libraries have been leading the way in transforming their spaces to align with university strategy and changing pedagogy by repurposing traditional spaces to deliver a variety of collaborative learning spaces with a strong focus on student-centred, flexible design (Bennett, 2011; Spencer & Watstein, 2017). Library learning commons such as the Saltire Centre at Glasgow Caledonian University, the Learning Grid at the University of Warwick and the Information Commons at the University of Sheffield were early adopters and have become campus hubs of active, experiential learning (Appleton et al., 2011). Examples in North America include the award-winning Hunt Library at North Carolina State University, the University of Pennsylvania Libraries' Weigle Information Commons and the Taylor Family Digital Library at the University of Calgary (Lippincott, Vedantham, & Duckett, 2014). Technology is a strong feature of these spaces, with tools for interactive computing, multimedia creation, graphics services, audio and video editing and presentation software. These flexible, hi-tech learning spaces are designed to “promote interaction and collaboration, with comfortable furnishing, art and design to make users feel relaxed, encourage creativity and support peer-learning” (Sinclair, 2007).

In library and information science literature, concepts of informal learning space and the library as a third space are explored, where the library provides non-discipline specific space for self-directed learning in communal, neutral space situated between the formal classroom and informal home environments (Cunningham & Walton, 2016). While the evidence indicates that students still prioritise the provision of quiet space in libraries as critical to their study (McCaffrey & Breen, 2016), the provision of flexible, collaborative spaces that are enriched with technology are becoming increasingly important, for students, teachers and university leadership. The rationale for locating these collaborative learning spaces and technologies in the library is to enable equal access for all, in a building with long opening hours, with staff experience of space management, typically good customer service and a strong ethos of sharing and openness.

At the University of Limerick, the transformed Glucksman Library has responded to, and is driving major changes in the provision of flexible, technology-enriched collaborative learning spaces that meet the needs of the student as co-creator and collaborator of their learning. Of the 2,200 study spaces, 1,200 are for quiet individual study, with the remaining designed for collaborative, technology-enhanced learning. Gobnait O’Riordan, the Director of Library & Information Services at UL who led the transformation, outlines the key design principles which included a variety of spaces for students to work collaboratively to explore and create new knowledge in a digital scholarship environment (O’Riordan, 2018). The new library provides a variety of technology-enriched, flexible learning spaces to support experiential, collaborative and active learning among both students and staff.

2. Spaces for students to collaborate

Twenty five group study rooms are available for students to book from the library website for two hour periods, between 7am and midnight. Each room contains a large wall-mounted LCD screen to which students can connect devices directly or via Wi-Fi. The rooms accommodate different numbers from two to eight people. Students can check the availability of rooms on the web-based booking system and can make

bookings online without mediation by staff. Two of these rooms – a media production room and a practice presentation room - are equipped with specialised technology to enable digital knowledge creation.

The group study rooms have been designed with glass walls so immediately when the library opened staff could observe the exceptionally heavy use of these spaces and the type of activity that was taking place there. In the first year the rooms were reserved a total of 19,582 times. A key principle to maximise use of these spaces is that when not booked, the rooms are open and available to other students. Therefore, in addition to known bookings, observational data and student feedback indicated that many groups of students regularly used the rooms without a booking. At the point of booking, students have the option of giving a purpose of the group activity and this qualitative data provides insight into the types of learning activity that is taking place in these rooms. Reasons provided range from broad descriptions such as ‘group project’, ‘group assignment’ ‘meeting for class project’, to more specific descriptions such as ‘management principles group assignment’, ‘group sketching project’, ‘embedded software study group’, ‘Maths study want to talk about certain sums’. In some instances the rooms are booked for activities other than course assignments, such as ‘committee meeting’, ‘interview practice’ and ‘I have a Skype interview and need a suitable quiet room on campus with reliable Wi-Fi.’ In time, a wealth of quantitative data contained in the booking system will give indications about the types of students using the rooms, in terms of subject, year, course, etc.

Other collaborative spaces include five booths with digital screens, break out spaces with informal furniture, the i-Zone collaborative space and the popular library café. Exploring the type of activity occurring in these non-bookable collaborative spaces is more difficult, although there are established methods in the library and information sciences literature to study space use such as heat maps, space surveys and discrete observation (Khoo, Rozaklis, Hall, & Kusunoki, 2016). Anecdotal observation by staff in the first year after opening indicates that these spaces are without exception very heavily used and that, by in large, students are engaged in serious, collaborative activity.

Specialised collaborative learning spaces

The group study rooms are primarily used by students for peer collaboration and do not usually have a teacher or tutor present. The new library also contains a number of specialised, hi-tech spaces that are available to staff wishing to collaborate with groups of students in more interactive, less traditional ways.

A training room primarily used for library teaching was designed as a flexible space that has movable furniture and can accommodate 35 students in classroom layout and 20 students in either breakout groups or boardroom layout. A podium, projector and white screen are available. The flexibility of the room contributes to its popularity among both library and university staff. Librarians provide both classroom and active group style teaching on information literacy skills such as referencing, finding and evaluating information and research impact. Staff from Special Collections & Archives deliver training to groups of students who interact with and explore primary source archives and rare books. When not in use for these purposes, the room is a popular venue for university group meetings.

A truly unique feature of the new library is the Moot Appellate Courtroom. This space features a curved judge's bench capable of seating five judges and replicates the design of the Irish Supreme Court. The space supports experiential, collaborative learning by allowing students to practice their legal advocacy and presentation skills in a realistic appeal court setting. Law students can pair up with students from other areas to learn the legal aspects of their disciplines. A key flexibility of this technology-infused space is that, when not being used by law students, it is available more widely and can accommodate 60 people in audience layout. As such, it has been used by the university for seminars, guest lectures and large group training and has recording and broadcasting technology available.

One of the most technologically advanced spaces is The Edge – a digital scholarship studio containing a data visualisation laboratory where groups of researchers can

immerse themselves in their data and visualise it in new, creative ways using a large video wall and high-end software. Collaborative, interdisciplinary activity is a key feature of these spaces that exist most commonly in North American libraries, where researchers can develop their digital skills, use research softwares and where peer-to-peer learning among researchers from different disciplines is encouraged.

4. Conclusions and Future Work

Further space transformation to support pedagogical change in UL is planned at the Glucksman Library. Traditional, lesser-used library spaces in the original building will be repurposed to provide a collaborative learning commons, a makerspace for hands-on learning and an Innovation Centre which will be an experimental space for teaching staff to explore emerging pedagogical ideas, methods and techniques, somewhat similar to the Teaching Grid in the University of Warwick (King, Joy, Foss, Sinclair, & Sitthiworachart, 2015). This space will be designed to be highly flexible and, in the spirit of maximising use of space, when not being used by teaching staff, it will be available for student study.

Changes in higher education and in teaching and learning methods, together with technological advancements and changing student behaviours, are collectively increasing the need for flexible learning spaces on campus that enable collaborative engagement, knowledge creation and that have student-centred learning at the core of their design. The new Glucksman Library at the University of Limerick is meeting this demand and has become a campus hub for active, experiential learning. No longer simply a repository for books and journals, or a space for quiet solitary study, the library is leading the way on space transformation to deliver the flexible, 21st century learning campus.

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