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RE-EVALUATING LEARNING ENVIRONMENTS TO NURTURE STUDIO CULTURE

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ABSTRACT
Following the COVID-19 pandemic and the resultant remote teaching that lockdown enforced the requirements and suitability of physical learning spaces such as studios can be questioned. This paper seeks to understand the requirements of students in this decade of their physical studio spaces.
Using focus groups, surveys and user feedback activities students on the Product Design programme were asked to evaluate the studio spaces within the university as they returned to on-campus learning and provide qualitative feedback on their experiences.
It was found students still require physical studios that allow them to undertake their design work and utilise tools and the space in a way they are unable to in other learning and domestic environments. Most importantly students require a space that allows them to understand and conceptualise project work, engage in discipline-specific discourse and feel a sense of ownership to encourage creative thinking.

Keywords: Product design, studio culture, studio practice, learning environments, design education

1 INTRODUCTION
The nature of the educational practice of many design programmes has led us, as an academic discipline, to rely heavily on our physical studio spaces. Communication and collaboration are key skills that are required from design students in the development of their project work [1]. The physical studio provides a teaching, practice, and social space where students can work individually or collaboratively, as required on their various practice-based assignments.
Education post-COVID-19 is likely to face pressures to embrace a blended, if not fully digital model [2]. Design courses have invested considerable resources (both time and capital expenditure) to develop studio-based learning spaces which fulfil the needs of their often practice-led, learning styles.
COVID-19 and the related university closures, which in some cases lasted for entire academic years, have resulted in a novel situation in which many mid-programme undergraduate students have undertaken much of their design learning either outside of the studio environment or within an environment that is not optimised for the learning experience we would have previously promoted. Previously studios had been heralded as enabling spaces on which to base fundamental pedagogical models for other practice-based programmes [3].
Pressures to adapt our teaching practice presents a unique opportunity for educators to again evaluate and define the role that educational spaces have in our programmes, and how we use them to build engagement and foster our students' development. We cannot ignore lessons and new modes of working we have encountered during pandemic closures [4] and as such we should identify which new paradigms need to be integrated to create engaging studio spaces for this next generation of design students.

1.1 Current situation
The first step to understanding the future role of these spaces is to learn from our students' needs and experiences as they return from distance and blended study to again working in studios. Through exploring how students interact and engage with their learning spaces, using peer feedback, questionnaires, and student interviews, we can learn how we can best accommodate and facilitate a new generation of active studio learners working with both physical and digital educational tools.
Due to the length of time students have had to engage in remote learning there has been a loss of tacit knowledge on how to use and engage with the studio space within the student body. It has been noted that students have had a lower than anticipated engagement with the studio when they returned to campus in Autumn 2021 The culture which was present before the pandemic has not returned. Many

students, during online teaching, lamented the ability to meet in person and engage with their peers and so the slow return to the spaces was an unexpected outcome of the return to campus.



Figure 1. Classes in the three studio rooms currently available to students on the programme

Generally, during scheduled class time, utilisation of the learning environments is good. However, the mentality where students choose to stay to work and study within these spaces outside of class time, to engage in didactic discourse amongst peers, is much reduced.

2 METHODOLOGY

To develop an understanding of student feelings around the use of the studio it is important to capture a broad range of views to understand the specific requirements students in the 2020s require of these environments. User focussed and ethnographic research techniques are the mainstay of design research projects and so students should be familiar and comfortable engaging with these research approaches.

2.1 Student Feedback Exercise – I Like, I Wish, What If?

It is important to understand information about studio culture and behaviour among the student body to categorise and frame their experience. The Design Thinking exercise *I Like, I Wish, What if?* Is a quick, well regarded, research activity that seeks to understand a user's feelings whilst framing their feedback in positive and understandable statements[5].

To allow all students to engage with the studio spaces in a meaningful way it was planned to hold user feedback sessions in the last weeks of the Autumn semester during studio project classes. Due to increasing rates of infection in the student body, at the time of the research, some classes were moved to online teaching. To provide all students with an equal engagement experience the exercise was conducted via the online tool Miro. Students were emailed instructions and links to a virtual pin-up board to allow them to review their three studio spaces. Although not an ideal facsimile of the in-person task due to the inability to ensure broad and equitable engagement across student cohorts, this method allowed for strong and meaningful student engagement in a format most students were familiar with.

2.2 Focus group

A secondary exercise was undertaken in the first quarter of the second semester to gain a more detailed understanding of the voice of the student body. All year groups were invited to participate in a focus group held in the main studio. Invitations to interact with the focus group were offered to each class via their class representative with an opt-in for those students who wished to engage. The number of questions for the focus group was kept deliberately short, 4 in total, to encourage the maximum amount of discourse amongst the group and to allow for the development of narrative examples as suggested by Queensbury and Brooks [6].

2.3 Survey of cross-disciplinary year 3 students

Students in the third year of the Product Design programme were invited to engage in a survey that looked to understand their feelings around the use of pin-up boards as a tool for developing design outcomes and generating a feeling of ownership within the studio. These students were chosen as they were engaged in a live, cross-disciplinary project with Visual Communication students and this project provided them with the opportunity to work in a separate and distinct studio environment. Within the studio spaces in this programme Pin Up boards are a relatively new tool and students were actively encouraged to use them. The students were surveyed as to their feelings around interacting with this tool and how using the tool made them feel about using the unfamiliar space. The survey was designed

for conciseness to capture maximum engagement amongst the student body whilst also providing targeted responses.

3 RESULTS

By using a broad range of approaches to gather data on the students' feelings towards the design studios a broad amount of qualitative data was collected which could then be interpreted to gain a better understanding of the current sentiment of the student cohort to the studios on campus.

3.1 I Like, I Wish, What If?

The Miro boards provided an excellent medium for gaining a wide range of voices and collecting a variety of responses to the prompts: What about the Studio do you Really like? What about the studio do you think needs to change? And What else could be done with the studio spaces?

Responses were returned across the broad themes of *room architecture, practice activities, furniture, resources, use* and *room feel.* These responses were collated into one board with combined phrases that mirrored the *I Like, I Wish, What If* prompts. Where there were multiple responses dot voting was incorporated to show that there was a larger body of students who stood behind that statement.

Students were much in favour of studio spaces with high ceilings and bright, natural light (although some comments in the *I Wish* section would like to have more control over the light, either through the installation of roller blinds or through more user-friendly controls for artificial lighting.

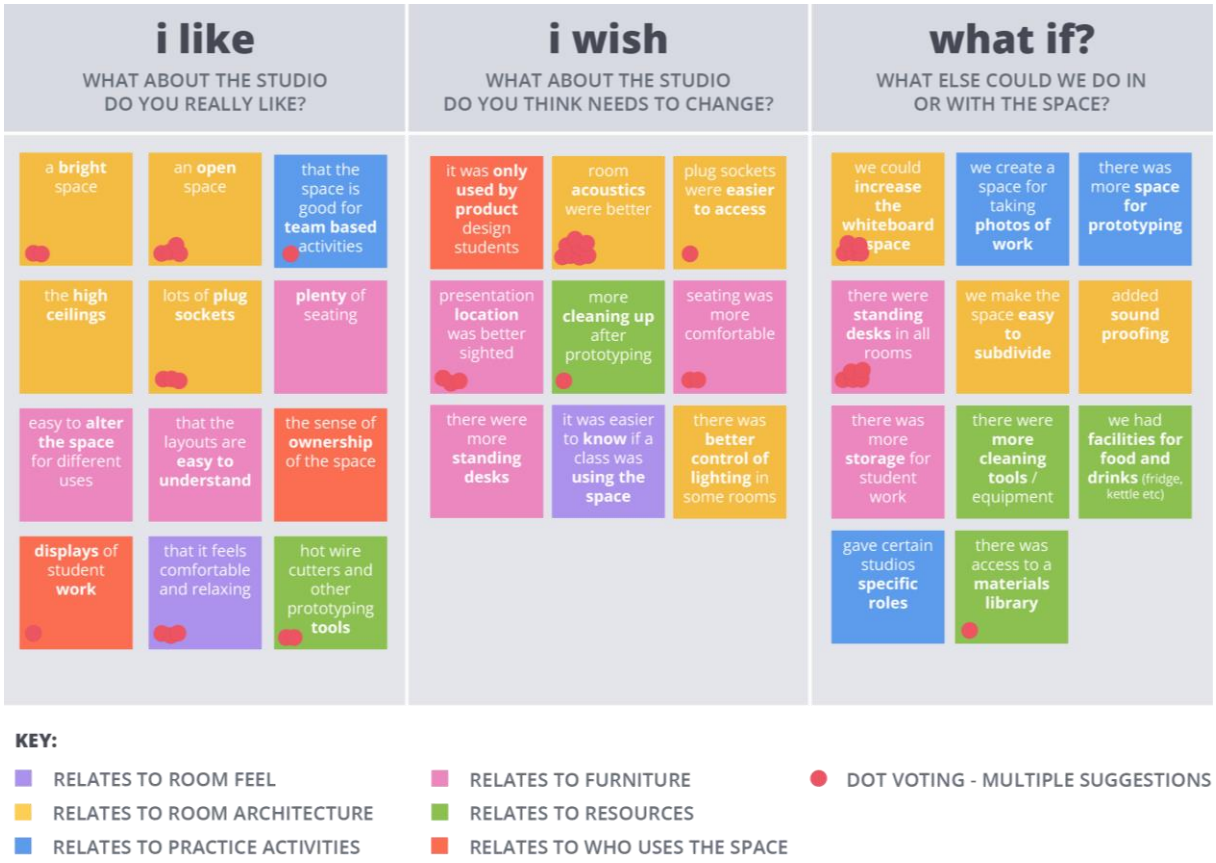


Figure 2. Collated results from Student Feedback Exercise - "I Like, I Wish, What if?"

3.2 Student Focus Group

From the focus group activity, students were able to explore, in-depth, their feelings around the use of and engagement with the various studio spaces available to them. The focus group ran for just under an hour and provided answers to four questions: *What do you feel the role of the design studio is? How comfortable do you feel working in the studio? What makes for a good space to undertake design work? Who is responsible for the studio?*

The focus group was attended by eight students across the various years and was a forum where the students felt comfortable interacting with each other and discussing their different views. The ability to develop stories was a useful tool that allowed students to share experiences and relate across different projects and practices.



Figure 3. Thematic analysis of responses from the focus group activity

The themes which were identified by the focus group mirror those found in the student feedback exercise and are related to practice activities and what was required to undertake them, the feel and the types of furniture required.

3.3 Student Survey

There was good engagement with the student survey with twenty-two respondents among the product and visual communication students. Many students found the studios an engaging environment before the start of the project which is in line with the rest of the data. However, only 50% of students would have used the pin-up spaces and under sixty per cent of students felt a sense of ownership with the studio spaces. This is in line with anecdotal observation of studio engagement in Semester 1.

Pin-Up boards were found to be a tool that allowed students to better visualise their project work (77%) and of those students who replied favourably to using the tool most (88%) replied that having their work on display in a studio had a positive impact on how they felt about using the studio. Eighty percent of all respondents felt more inspired within the studio space when there was student work, which related to their projects, on display in the studio.

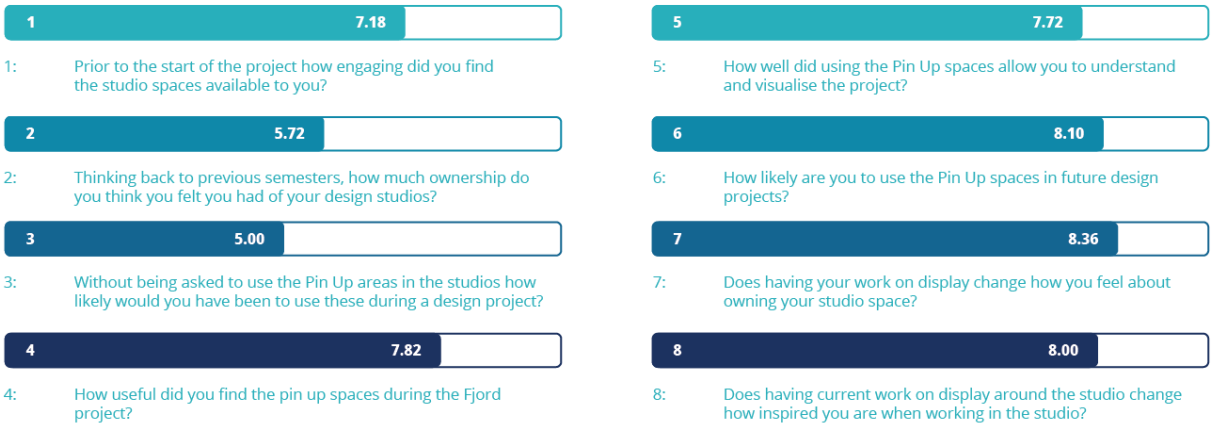


Figure 4. Results from Survey of Year 3, cross-disciplinary design project, participants

4 DISCUSSION

Students found that all rooms were appropriate for group work, which was seen as a large benefit and flexible spaces which were understandable and easy to alter were preferred. Also, all rooms were found to have plenty of seating, which was a positive – although this was referenced later and more specifically in the focus group as potentially hindering discursive behaviours. Students are individuals and the variety of seating on offer was, to some students, an issue although in the focus groups this was a matter of great debate and it became apparent that having variety, allows distinctive styles of work in each environment was required. Students also had a strong wish to embrace modern models of working with a preference for higher working surfaces and standing desks and general discontent with rooms that did not have these types of furniture within them.

but sitting up high it encourages you to just get up or get up and walk around

Students found that they had a sense of ownership of the studio spaces and especially liked studios where there was the facility for the display of work to their class group and other years. Students liked the ability to see work change and develop across projects and the academic year and were strongly in favour of having more space where they can visually understand their projects.

I think it also creates like a really welcoming space that you kind of want to go into that looks interesting [regarding work on display]

Students were not in favour of times when other programmes or student groups might require the use of space and felt a keen sense of ownership and defensiveness in these cases.

The location of general access prototyping tools such as hot wire cutters and 3D Printers was seen as a benefit that was enjoyed by the student body. However, although all rooms have some materials for cleaning students felt that these could be expanded upon and made more accessible. Design can after all be a messy activity and it is not surprising to find that students wished to maintain levels of cleanliness, outside of when contract cleaners might work in the room.

From the data gathered students were generally in favour of developing environments that were more, unlike the resources that they may not have access to outside of the university. A wish for more standing desks, more whiteboard spaces, a dedicated space to take high-quality photographs of work and access to specialist tools such as a materials library were all suggested. Students were very much in favour of more natural and wood-based finishes within the studio spaces feeling it provided an appropriate professional feeling. The student body felt that it had the right balance of modern design aesthetic with the ability to feel like a place where design work could be undertaken and Fell suggests that the biophilic nature of wood promotes the warm and welcoming feeling students suggested a studio requires [7].

a studio should be, like, welcoming, warm, but also give you the ability to develop ideas

Students had many opinions on how a studio should feel and the type of work that should be undertaken in them. There was a genuine appreciation for the studio spaces and a positive feeling toward them.

an environment devoted to creation

and

that quiet space [that] maybe you won't have at home where you can get your work done

It is important to note that not every student will have a space in their domicile where they can comfortably undertake design work and many University campuses will not have “chaotic” or “messy” spaces where students can work freely on design projects. This makes the studio an important space for providing an equal opportunity for all students to fully engage in their design practice.

5 CONCLUSIONS

Studio spaces require effort to develop and nurture if they are to provide a lasting positive influence on a design student’s studies. They are important for developing critical and discursive practice and for allowing cross-pollination of ideas within project-based learning and student cohorts. Students still see great benefit in the ability to physically interact with their peers and share ideas through mediums outside of screens and communication devices.

Students are more inclined to work with the studio if it offers them benefits outside of those they can develop elsewhere and can be simple in that they provide a “home” for the programme and where the students can relax and develop their creative practice. Students still favour foundational tools such as whiteboards, pin-up boards and basic prototyping and sculpting tools, even amongst a population that has had great agency to use virtual alternatives.

However, to nurture these spaces, we must ensure that environments be welcoming and that there is an agreement with the student body on how the space is run and managed. To generate a natural engagement there should be the facility for students to develop ownership and integration through the ability to store and display their work and have a voice within the management of the space.

It is also important to provide facilities to allow students to work remotely and develop their practice. Providing students, with the trust and ability to take ownership is seen as incredibly important for developing a powerful sense of ownership and engagement that a functioning studio space requires.

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