

'The bods at the back': exploring the relationship between classroom layout and student engagement

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Introduction

I teach a year-long module on a Level 7 course. There are usually between 12 and 20 students in each cohort, but whatever the number of students there are always a few who persist in sitting at the back. Whether this is habit of theirs or a means to discretely disengage (or both) I am not certain, but it is clear that those who do this tend to be the poorer performers. The objective of this intervention is to observe and get direct feedback on students' personal feelings of engagement when I change the layout of the class from a traditional class layout with multiple rows of desks to a single row of seats, arranged in a horseshoe, with me in the centre.

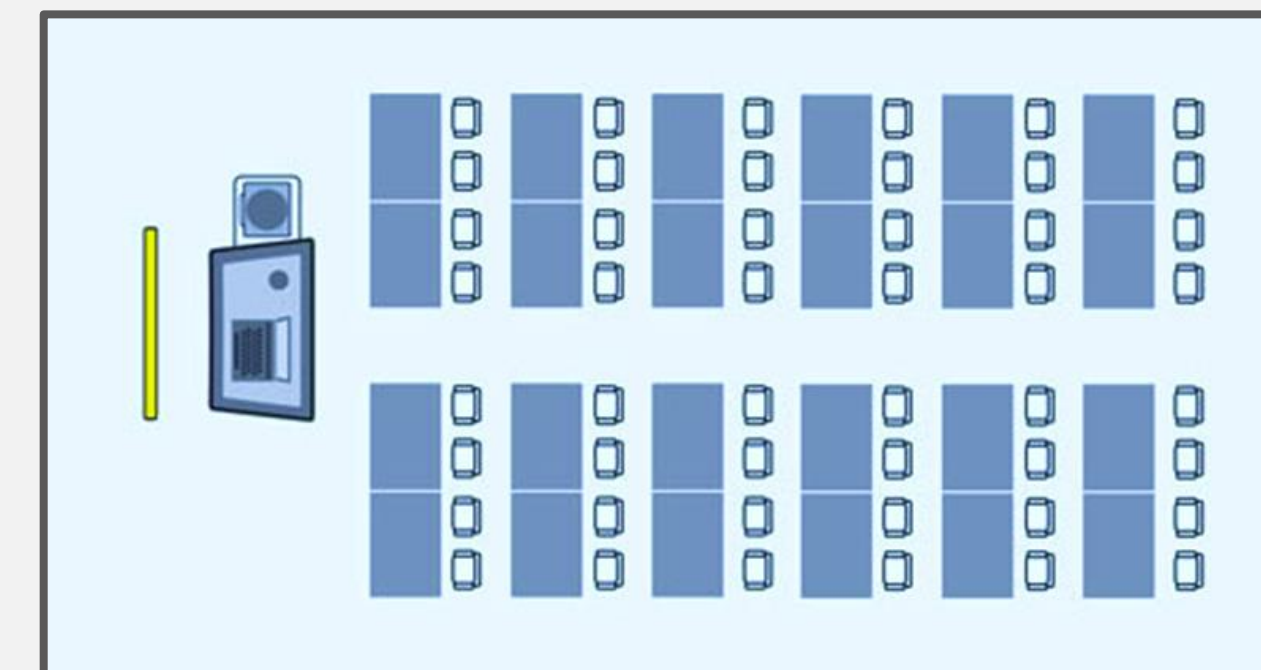
Literature Review

Based on direct feedback from students, the physical environment in which they work and learn is important to them – comments about natural light, ambient temperature, for example, are common. Brooks (2011) established that 'controlling for nearly all other factors, physical space alone can improve student learning even beyond students' abilities' as measured by standardised test scores'. Boettcher (2007) suggest that every learning experience must include 'the environment in which the learner interacts' and goes on to suggest that the design of the environment must consider 'when, with whom and with what resources will any particular instructional event be likely to occur, and what are the expected outcomes?'.
Given that the taught part of the module is preparing students to work on a three-month project in teams, I need them to interact, build relationships with each other, work together, as well as engage with the academic content. In other words, I need an active learning environment. To this end, I decided to experiment with a single horseshoe of chairs in that it facilitates interaction: 'active learners within the classroom setting are better supported through circle or cluster arrangements' (Atherton (2005) quoted in Haghghi and Jusan (2012)). However, measuring student engagement in this context is difficult as 'engagement encompasses overlapping behavioural, psychological, sociological aspects' (Maskell and Collins, 2017) and given the scope of this intervention this will involve subjective assessments of all three of these by teachers and students.

One of the keys to measuring the outcome of this experiment is to get honest and direct feedback from the students about their learning experience. However, there appears to be relatively little literature on eliciting direct or informal feedback from students. Howson (2015: 126) does observe that 'an advantage of informal feedback is that the lecturer has control of the questions and they can be specified to the learning context'. In this context I focused the students' feedback specifically on the learning environment.

Context

I have taught both large and small groups of students over a number of years. It is with the smaller groups that I wanted to focus this intervention. As a teacher, student engagement is what I focus on more than anything else, and with smaller groups disengagement is a bigger problem, not because proportionately there are more disengaged students, but because they are more visible and more likely to distract others. And smaller class sizes present an opportunity for me to experiment, whether that be with ad hoc group presentations, case studies or with class layout. And it is class layout that is the focus of this intervention.



Traditional classroom layout

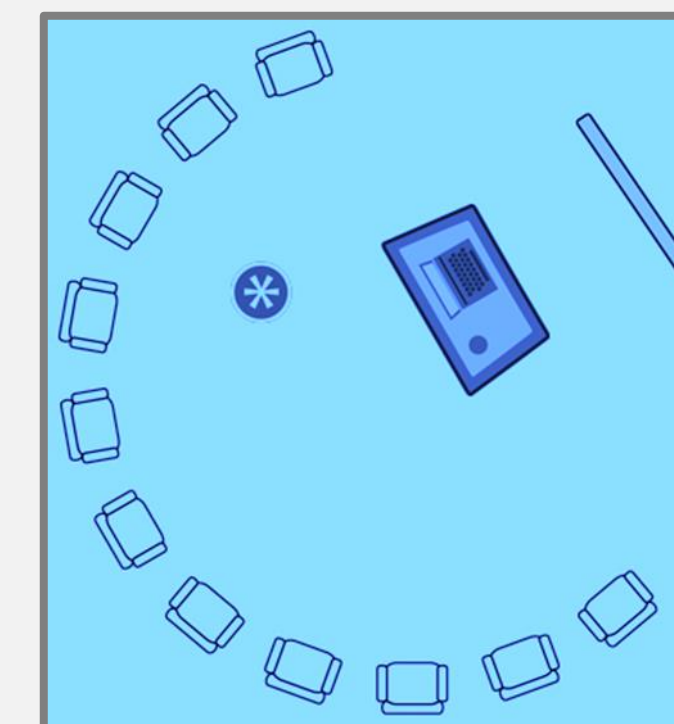
Methodology

In order to explore whether seating layout has an impact on student engagement, the approach to this intervention was to assess student engagement prior to making any change; make the change to classroom layout; then re-assess the level of student engagement.

I identified a number of ways of measuring engagement: personal observation; observation by others; student attendance (including lateness); and, student feedback:

- Personal observation (and observation by others) is subjective, but body language, how the students respond when answered questions are good indicators and provide subjective data.
- Attendance data is collected by the tap card registration system (SAM), and a student who is more than 15 minutes late is registered on the system as such.
- Student feedback data can be collected in many ways but I felt it important to collect in-class feedback using an approach designed to minimise the potential for students not to voice their opinion out loud (which can occur for many reasons, for example, if students are anxious about speaking in class, or fear being judged). For this reason I chose to collect the feedback anonymously using flip charts and post-it notes.

The timescales for the intervention were between 14 February 2019 and 28 March 2019.



Horseshoe seating layout



Student feedback

References

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- Brooks, D. C. (2012) 'Space and consequences: The impact of different formal learning spaces on instructor and student behaviour', *Journal of Learning Spaces*, 1(2), pp. 1–16. doi: 10.1080/13562517.2017.1414785
- Haghghi, M. and Jusan, M. (2012). Exploring Students Behavior on Seating Arrangements in Learning Environment: A Review. *Procedia - Social and Behavioral Sciences*, 36, pp.287-294.
- Kandiko Howson, C. (2015). Feedback to and from students: Building an ethos of student and staff engagement in teaching and learning, in Fry, H., Ketteridge, S. and Marshall, S. (eds), *A handbook for teaching & learning in higher education: Enhancing academic practice* (4th edn), Abingdon: Routledge, pp.123-138
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Evaluation

Based on the three measures identified above:

My personal observations are that students, after a period of time adapting to the new layout responded positively to the change. Evidence for this is an increase in participation by most students; a greater enthusiasm for group work; a decrease in the use of electronic devices (eg phones, tablets) in class; students voluntarily moving chairs into the layout before class, and moving them back after class. This is supported by the following comments from a colleague who observed one of the sessions: 'Students seem to enjoy the class and were alert and engaged throughout' and 'Peter demonstrated a special connection with students which enabled him to communicate effectively and maintain a level of engagement which is often difficult on a late evening class' (Eshragi, F).

Attendance at the class improved and instances of students being late dropped (based on SAM data).

Student feedback was universally positive. Comments included: 'the layout stimulates discussion and it is easier to focus', 'layout is useful, it encourages me to engage more as well as see the board more clearly', 'I like to sit in the room close to each other as it encourages communication'.

100%

The percentage of students who were positive about the layout

Final Considerations?

Based on evidence and personal perception the intervention was a significant success and students learning outcomes (based on formative assessments) have been much improved over previous cohorts.

This is a small scale, single instance study and while the results are interesting and thought provoking, they act mainly as a signpost for further more in depth, and more rigorous research. In addition, the literature surrounding collecting direct feedback from students seems sparse and there remains an opportunity to conduct further studies into this topic.