Opening the Box: Rethinking Classroom Flexibility from a User-Based Perspective

Walter Peace¹
David Kidney²
Yaser Haddara³

¹School of Geography and Earth Sciences
²Classroom Audio Visual Services
³Dept. of Electrical & Computer Engineering

Background
We organized discussion sessions in the Learning Technology Resources Symposium several years running. We asked participants to reflect on the classroom of their dreams. We found that everyone wanted everything in every classroom. The “ideal” classroom was a universal classroom where everything could be moved and reconfigured in real time. Flexibility was the universal theme. Reflecting on this further, we found it to be problematic. Different stakeholders think about what they want in classrooms from different perspectives. But whether someone was thinking of scheduling, packing students into seats, repair and maintenance, or security, or whether one was thinking about technology, modernity, or flexibility, we were still approaching classroom design from the perspective of the room! Old or new, fixed or movable, technology or blackboard, people envision models of what they think a classroom should look like. We decided to ask a different question. Given the “perfect” classroom, how would you actually use it? We suggest that classrooms should be envisioned to facilitate specific uses. Our hypothesis is that “use cases” can be identified and grouped so that classrooms may be designed with “good enough”, i.e. sufficient flexibility as opposed to “universal” flexibility. Our objective is to produce a set of classroom models, each model being useful for a range of use cases. This would identify the different types of classrooms that should be available on campus.

Methodology
- Interviews with faculty: different disciplines; different class sizes; different experiences
- Interviews with students
- Received ethics approval for our interview and recruitment protocols
- Faculty interviews focus on use cases:
  - How do you currently use the classroom?
  - What would you like to do that you cannot currently do?
- Student interviews focus on the student experience

Preliminary Results
We are still very early in the interview process, so it is not yet possible to draw firm conclusions, but a few interviews have been conducted and they raise some very interesting ideas.

First, there appears to be a clear distinction based on class size.
For large classes, pedagogical decisions appear to be dictated by instructor’s style and class size much more than the classroom. Technology becomes important: wireless microphones, separate microphones for students, remote control of slides, etc. The geometry of the room (too wide, too deep, etc.) becomes a determinant of interaction with students.
For small classes, furniture and layout matter more and can either enable or hinder group activities or discussion.

So one preliminary conclusion is that the kind of flexibility needed in a large auditorium appears to be very different from that needed in a smaller room.

A second issue is that some aspects of room design affect instructors and students differently. For example, lighting needs for projector presentation and note-taking are different.