

Rather than following traditional classroom models in which the instructor occupies a position of focus and students are arranged as an audience, we need to design teaching space so as to promote active learning, critical thinking, collaboration, and knowledge creation.

Reach Carolina

Classroom Innovation Subcommittee

Classroom Improvement Recommendations

July, 2013

Background

During spring 2012 the Classroom Innovation Subcommittee (CIS) produced and administered two surveys on classroom use at Carolina, one for faculty members teaching in general purpose classrooms (GPCs) and one for departmental scheduling officers. More than 50% of the roughly 1000 faculty members invited to participate completed the survey. The survey findings resulted in an executive summary and full report that were presented to the Classroom Policy and Steering Committee (CPSC) during the fall of 2012. Both documents are available through the Center for Faculty Excellence at <http://cfe.unc.edu/reports/>. In spring 2013 Vice Provost Carol Tresolini asked the CIS to develop a set of recommendations for addressing the challenges identified in the survey findings. She provided a framework for action based on the University's academic plan and UNC General Administration's classroom utilization guidelines.

Recommendations

The Subcommittee's recommendations fall into five broad categories: capacity and utilization, design, matching instructors and classrooms, renovation priorities, and technology. Each recommendation is accompanied by a brief rationale. The order that the recommendations are listed does NOT represent any prioritization on the part of the CIS.

Capacity and Utilization

Recommendation #1: Clarify seating capacity needs for all general purpose classrooms.

In the 2012 survey on classrooms, 62% of faculty members identified the ability to move around the classroom and interact with students as a very important consideration when selecting a classroom. Faculty interaction with students is a critical aspect of effective small

group work and discussion. Unfortunately, many of our general purpose classrooms impede instructor movement because there are simply so many seats in the room.

Classroom renovations that promote instructor movement can result in a loss of seats, depending on the extent to which the number of seats is already near allowable physical capacity. For example, interactive classrooms renovated between 2010-2012 saw seat losses of 10-20%, as well as seat gains of 5%-33% (Table 1).

New interactive classrooms (2010-2012)

Classroom	Design	Total seats	Seats (+/-)
208 Phillips	Studio	45	+11
206 Phillips	Studio	45	+11
010 GSB	Studio	72	-8
311 Peabody	Swivel seats	48	+3
218 Peabody	Swivel seats	40	-8
201 Dey Hall	Interactive tablets	28	-7
035 GSB	Interactive tablets	35	0

Table 1

During the Classroom Policy Steering Committee’s oversight of the renovations, several concerns were raised about the impact of interactive designs on seating capacity, especially in mid-sized classrooms.

The Classroom Innovation Subcommittee is seeking clarification on the University’s capacity to accommodate seat loss in its general purpose classrooms. What assumptions are current guidelines for determining the number of seats in our classrooms based on? For example, what kind of enrollment growth is expected during the next 3-5 years? Do the guidelines reflect what we know about evidence-based instructional methods? Are some of our GPCs better positioned to accommodate potential seat loss than others (see Recommendation #2)? To what extent can more strategic scheduling of classrooms mitigate concerns about capacity?

In order to map out an effective plan for upgrading our classroom inventory to support proven instructional methods, Subcommittee members feel that a clearer articulation of seating capacity guidelines for our GPCs is necessary.

Recommendation #2: Remove a percentage of seats from classrooms that are consistently under-enrolled.

Among the classrooms that may be considered for interactive designs are those that are consistently under-enrolled. For example, Table 2 contains utilization data for two classrooms in Dey Hall used primarily for courses offered by the Department of Romance Languages.

	Fall 2012	Spring 2013
203 Dey		
No. of seats	35	35
No. of courses	13	12
Avg enrollment	21	20
High enrollment	25	23
204 Dey		
No. of seats	35	35
No. of courses	13	11
Avg enrollment	18	21
High enrollment	27	28

Table 2

The unused seats in consistently under-enrolled classrooms such as these often serve as clutter that impedes interaction and movement. Removing 10-20% of the seats in these classrooms would facilitate effective teaching practice and improve the University’s utilization numbers without negatively impacting departmental scheduling plans.

Recommendation #3: Make a formal request to UNC General Administration to set aside a percentage of GPCs that would not count toward the University’s classroom utilization targets.

There is concern among CIS members that effective teaching practice is increasingly at odds with expectations about classroom utilization at the University. Policies intended to increase classroom utilization rates have the potential to create incentives for academic units to place faculty members in classrooms that do not support their preferred instructional methods. For example, an instructor who wanted to teach in one of the University’s new interactive classrooms might instead be asked to teach in a less desirable classroom in order to increase departmental utilization of a particular classroom. Requesting that UNC GA consider a set-aside of rooms that would not be counted against the University’s utilization targets is one approach that would help ratchet down the tension between instructional quality and classroom utilization and would allow the University to better accommodate the shifting pedagogical interests of its faculty members.

The request also would provide an opportunity to discuss longer-term design and capacity trade-offs with system and University leaders.

Design

Recommendation #4: Ensure that faculty members and others with knowledge about effective teaching practice are involved in the University's building/classroom design process.

The University's approach to designing campus learning spaces should include a diverse range of perspectives. While planners typically look to faculty members from the departments that will be making primary use of a new room or building, design perspectives are often limited by the teaching philosophies and methods of the participating faculty members. Departmental administrative concerns may also take precedence over instructional quality considerations. Facilities Planning should work with the Center for Faculty Excellence and other campus organizations to ensure that current knowledge about both classrooms and informal learning spaces is represented in the planning process. Such input should be sought early in the design process. Instructional characteristics of new classrooms at Carolina, including the implementation of standard instructional technology infrastructure, are often considered only after the building and room dimensions have been designed.

Recommendation #5: Hold a campus Learning Space Symposium this fall.

"Contemporary debates on the topic of learning spaces tend to ignore both recent shifts in educational theory and practice and current ideas in architectural and cultural theory."

Jos Boys' (2011)

Members of the Classroom Innovation Subcommittee feel that steps should be taken to improve understanding between members of the University community charged with designing classrooms and the instructors and students who are their primary users. There is concern that the University is foregoing opportunities for meaningful collaboration in this area due to a lack of interaction and dialogue between campus planners and educators. The CIS proposes a symposium dedicated to sharing current thinking in both the design and teaching and learning fields, and improving understanding about how design decisions are made and how those decisions impact effective teaching practice. The program might include select participant presentations (e.g., a faculty panel on interactive teaching methods) and a plenary speaker with an external perspective on learning spaces trends. Representative administrators, staff, faculty, and students would be invited to participate.

Matching Instructors and Classrooms

Recommendation #6: Explore the use of cluster scheduling as a strategy for matching departmental scheduling preferences and GPCs.

Some academic units have scheduling priority over classrooms that do not address all of their curricular needs. Cluster scheduling would expand the number of priority scheduling rooms for each academic unit to a “cluster” of adjacent buildings. Classrooms that are not utilized effectively by an academic unit would be reassigned to another unit in the cluster or to the University Registrar. This would provide units with more diverse options for effectively matching instructors, courses, and classrooms, while at the same time providing some assurance that faculty members would still be relatively close to their offices. Criteria such as classroom diversity, disciplinary requirements, and utilization trends would need to be developed to guide cluster creation. Cluster scheduling could be approached as a pilot, or provide a framework for classroom scheduling in the event that the University Registrar considers significant changes to the priority scheduling policy.

Recommendation #7: Implement a web-based system that faculty members can use to create profiles for courses they teach and desired classroom attributes for each.

According to the 2012 Classrooms Survey findings,

- Fewer than half of all University scheduling officers have a formal system for matching instructor preferences and classrooms; among those that do, there is no standard approach;
- Classroom preference information must be entered into the central scheduling system every term; instructor/course profiles cannot be saved and reused;
- During the 2 weeks at beginning of each semester, dozens (100+) of courses must be rescheduled to meet instructor preferences.

A system that stores profiles for classroom preferences by course would help make the University’s scheduling system both more effective and efficient. It would improve the chances that faculty members would end up in classrooms that complement their teaching preferences, and would also minimize the number of classrooms that have to be re-assigned each semester. CIS members feel that integration with a central scheduling system is a preferable long-term solution. In the case that current commercial partners such as Ad Astra are not yet in a position to integrate these features, providing departmental scheduling officers with a tool for creating faculty/course profiles may serve as a useful interim step.

Renovation Priorities

Recommendation #8: Develop a renovation plan for an interactive lecture hall.

Faculty members interested in promoting student interaction in large lecture classrooms are currently limited to high-capacity halls designed for presentation. Some faculty members are intentionally under-enrolling their courses in order to provide more space for instructor-student interactions. A common approach is to leave multiple rows empty so instructors and TAs can interact with students sitting in front of and behind each empty row, but these workarounds do little to address student-student interaction. One of the older auditoriums should be renovated to support small group work and other interactive methods. While some percentage of seats would need to be sacrificed, the new room would attract many of the faculty members who are already under-enrolling large classrooms, possibly negating the net impact of seat loss. A renovation plan should be produced, and funding opportunities need to be identified as soon as possible.

Recommendation #9: Begin installing tablet arm chairs on casters in smaller classrooms.

A new generation of tablet arm chairs that is easy to move and customize is poised to make an immediate impact on instructional practice in our smaller and mid-sized classrooms. The results of a pilot study conducted at UNC-Chapel Hill in spring 2012 (https://cfe.unc.edu/pdfs/AltTabletArm_pilotRPT_AUG2012.pdf) suggest that simply upgrading free-standing classroom furniture can have a significant impact on student engagement in classrooms where active learning methods are regularly used. Although more expensive than traditional tablet arm furniture, exploring bulk purchases and reducing the number of seats in classrooms that are consistently under-enrolled (Recommendation #2) are among strategies that could be considered for mitigating additional costs.

Recommendation #10: Establish an ad-hoc facility for classroom capture.

A number of departments videotape student teachers as part of their assessment and development programs. Most GPCs are not set up to capture classroom interaction, especially instructor/student interaction that occurs beyond the podium area. The CPSC should work with the University Registrar and University Library to identify a room that can be scheduled on an ad hoc basis for such uses.

Technology

Recommendation #11: Outfit remainder of GPCs with standard classroom technology.

According to the 2012 classrooms survey, consistent access to classrooms with standard technology (e.g., digital display, media support, document camera) was identified by faculty members and scheduling officers as *the most important* factor in classroom selection decisions. While steps are being taken to address wireless access and cell phone receptivity issues in GPCs, 27 of the University's 211 GPCs are still not equipped with base level technology. Funding to begin upgrading these rooms (roughly \$40K per room) should be included in future budget requests.

References

Boys, J. 2011. *Towards Creative Learning Spaces: Rethinking the Architecture of Post-Compulsory Education*. New York: Routledge.