Beyond Whiteboards and Rolling Chairs: "Activating" an Active Learning Classroom Kimberly K. Eby, Amber N. Jensen, Laura A. Lukes, E. Shelley Reid, and Zhicheng Zhang

Active Learning Classrooms (ALCs) at Mason

Mason is reimagining learning spaces on our campuses to foster increased student engagement through active and collaborative learning. This commitment is part of our strategic plan goals for innovative learning and supporting teaching and scholarship excellence. With the addition of 8 new Active Learning Classrooms in Peterson Hall in Spring 2018, Mason now has **19 classrooms** intentionally designed to support active learning. The Robinson rebuild offers further opportunities for increasing the number of these learning spaces. As part of this initiative we have created an iterative design process that leverages feedback from faculty and students teaching and learning in these spaces.

Research Methods

This poster highlights qualitative and quantitative findings about faculty experiences teaching in Mason's ALCs based on faculty interviews and surveys. Near the end of fall 2015, spring 2016, fall 2016, and spring 2017 semesters, online surveys were sent to all faculty teaching in one of Mason's (then) eleven ALCs. In total, **391 unique faculty completed the survey**; response rates for the four survey administrations ranged from 60% to 70%. The findings presented here are based on compiled data from all four semesters. Follow-up interviews with a subset of 20 faculty were conducted during fall 2017 (n=7) and spring 2018 (n=13) semesters. Faculty interviewed represented a range of disciplines, colleges, departments, and ranks.

How Do Faculty Learn About Active Learning?

Rooms don't cause learning; teachers do!

"I've learned the most from the Innovations in Teaching and Learning **Conference**. The first time I heard it as a defined term was when [a colleague] told me about a class he'd taken as a graduate student where **Full Professor, Computer Science** they emphasized [active learning].

"Most of the strategies I've used came from grad school. There's actually a **TA for this course** who's actually taught it more than I have. We work together collaboratively and I always incorporate her suggestions." **Adjunct Professor, INTO Mason**

"[Active learning] was pushed in sort of a peer environment. This was not someone from the top. Some of it was classroom visits, where I'd go into my colleagues' classrooms, because we had to do class evaluations for tenure. And I'd be sitting there thinking, wow, that's really good. Where did that come from? It's like, 'Hey, where did you learn that?'"

Associate Professor, Computer Science



ALCs on Mason's Horizon

New Robinson Hall Opening 2021: 27 new university classrooms, from smaller 24-seat classrooms to larger 72-, 90-, and 120-seat classrooms

SMALL CHANGES

What kinds of in-the-moment instructional shifts do faculty make to activate learning in ALCs?



Collaborative Learning with Whiteboards

"The students were all . . .a little nervous, I think. I could sense that when I went in. So instead of doing the introductions [and] names, I gave them white board markers . . and I said, "Hey, why don't you list a person or a significant other you spoke to yesterday or the last, whatever it was," and then it was kind of tying it up with a class and we were doing [related] theories. And that kind of helped, I think. It kind of [broke] the ice; they were excited."



"Everyone went to the board and wrote down their research question and hypothesis. Everybody took two steps to the left and read a [peer's] question and hypothesis to see if it was clear. Do you understand what they're asking? Is there anything they're missing? Now move back, read your feedback. Take two steps to the right. We have white boards, let's use them!"

Collecting Information & Facilitating Groups using Dual Projector Screens

"The biggest change we've made is that we've gone almost paperless at this point. We can do double screens now, we are able to do our visual, our Powerpoint up on the wall, and if we are doing group notes and we're getting ideas from everybody and consolidating them, we can do it on one screen, we can have a timer on one screen."

Adjunct Professor, Education



"We can do group work assignments, so you can get your desks together in groups of four, but now we're going to come back. Put them back in a **U** shape, or we're going to push them all to the side of the room because we have [a guest speaker] coming in to do some team building activities." Adjunct Professor, INTO Mason

"At least one at every station had a computer, and so they had their set of documents that they would pull up. I was going around as well as my colleague, we were trying to help them. But they were making some decent jumps on their own, which I think is really important: to let them make some guesses and figure things out, and if they're wrong, that's fine, I can help them figure out why they're wrong."



For more information about Learning Environments at Mason, see http://learningenvironments.gmu.edu/

Adjunct Professor, Social Work

Associate Professor, Nutrition & Health Studies



Aligning Furniture to Learning Activities

Adjunct Professor, History

Average Frequency of In-Class Activities in Selected ALCs (as reported by instructors)

All ALCs (N=376) Innovation 323 / Bullet Tables (N=30) Robinson B 106 / Round Tables (N=43) 📕 Innovation 336 / Tablet Chairs (N=34) Exploratory L102 / ALT Classroom* (N=21) *includes additional pedagogical support

Collaborative Activities

> Individual Activities

Student Facilitated Presentations/ Discussions

> Instructor Facilitated Discussions

> > Instructor-Centered Activities

Instructor Circulated in the Room

What Larger Instructional Changes do Faculty Make When Teaching in ALCs?

"I do a lot less lecturing and more in-class activity and more collaboration." The classes are more segmented. We're not doing anything for an hour and fifteen minutes, but we're doing something for 25 minutes and then something for 25 minutes and then something for 25 minutes. But I would say the **de-emphasis of myself**, to a large degree, and a greater emphasis of them doing things on their own."

"As soon as I saw the space, it confirmed I could do what I really wanted, which was these small group sessions. Since none of them are history majors, I wanted them to have a **built-in network of people they get to** know and work with. And so I was going to use [the bullet tables] as their built-in network of people."

Challenges & Further Questions

BIG IMPACT



Response Scale: 1 = Never, 5 = Every Class Session

Term Professor, English

Adjunct Professor, History

 What kinds of systemic faculty development would best assist faculty in preparing to teach using active learning principles? How can we fairly and consistently schedule faculty into classrooms that match their teaching approaches?