Experience Matters: Demographic Differences in Student Perceptions of ALCs

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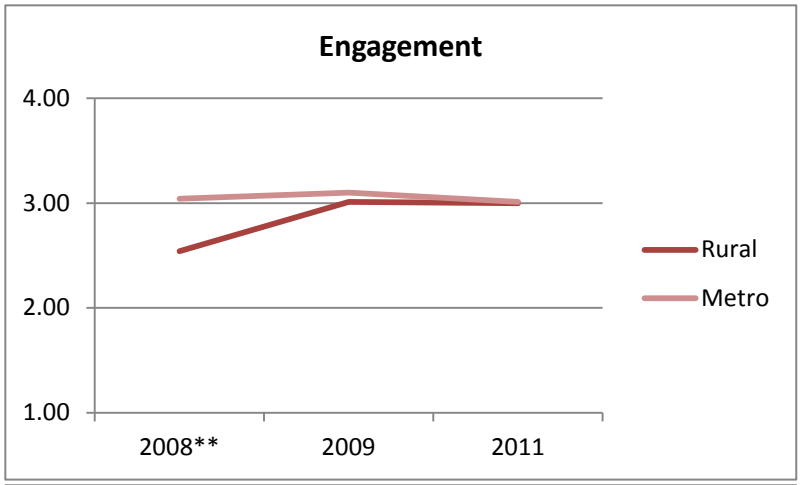
In addition to comparing different types of learning spaces, and different types of pedagogy within learning spaces, we revisited a finding reported in our 2010 *EDUCAUSE Quarterly* article, namely that certain demographic groups of students responded differently to new learning spaces.

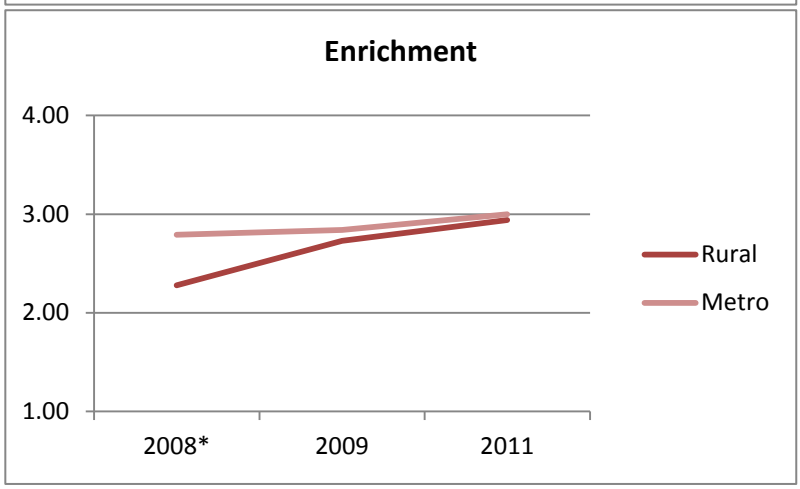
In our earlier research, we examined our five theoretical variables (engagement, enrichment, flexibility, use, and fit) and found that there were no statistically significant differences between student reactions to the ALCs based on sex or ethnicity. However, we also found that students from metro Minnesota counties reacted on the whole more positively to the ALCs than students from rural counties did, and that freshmen and sophomores responded more positively than juniors and seniors did.

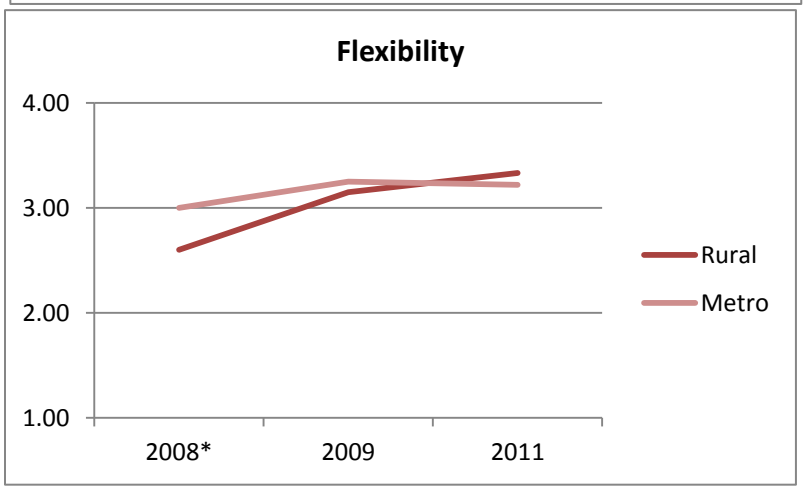
For this stage of our research, we wanted to reexamine these demographic differences in light of an important change that has occurred on the University of Minnesota campus since our earlier data were collected in 2008 and 2009, namely the construction of the STSS building and the increase in the number of ALCs on campus from 2 to 12. According to recent estimates,[1] approximately 15,100 unique students took at least one class in an ALC in the STSS building during the academic year 2010–2011, which means that the proportion of students who have experienced an ALC during their academic career has increased markedly.

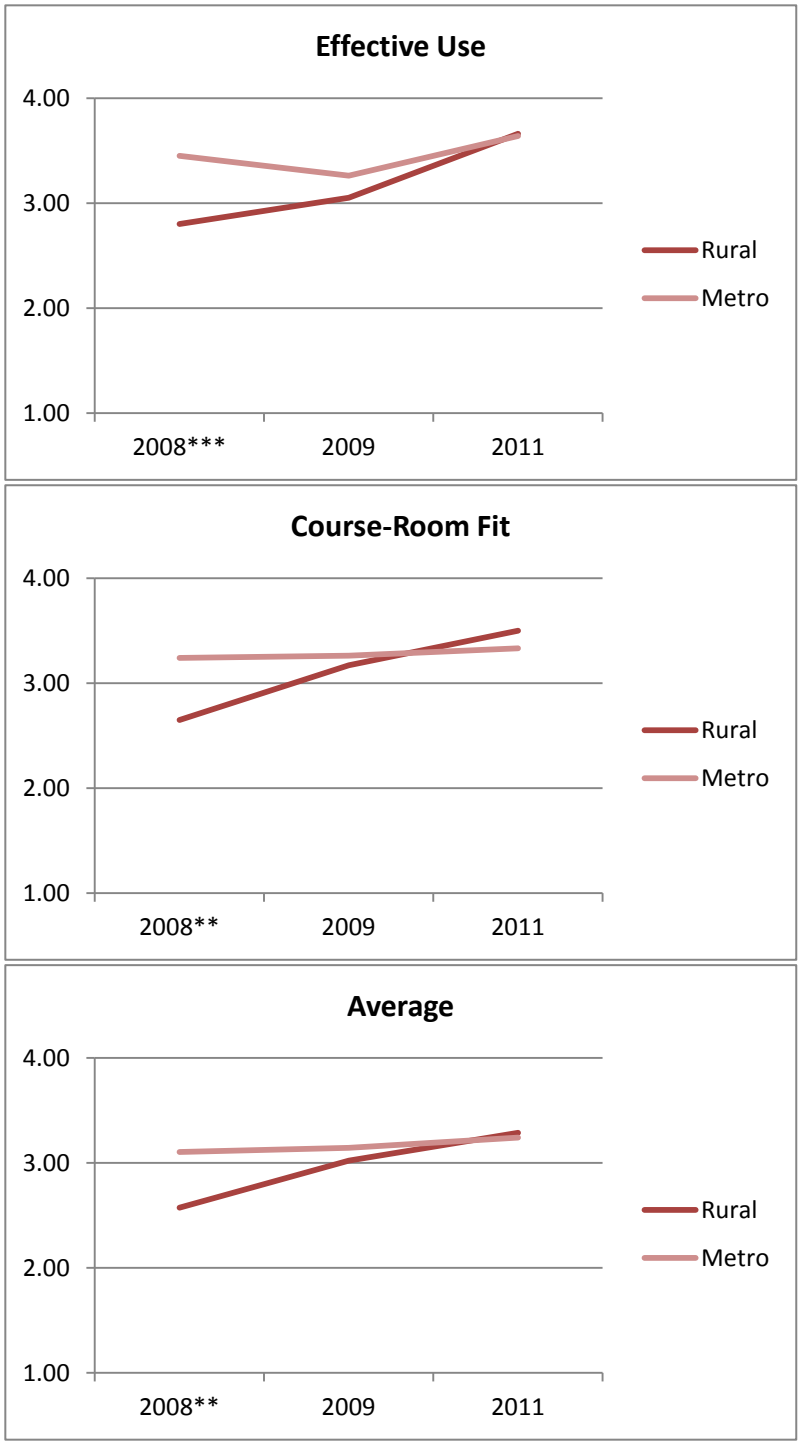
Rural and Metro Students

We added data from 2011 to our pool and mapped longitudinal trends for each of the five variables in each year for which we had data. Figure 1 contains summary graphs for rural and metro students. It is evident from these displays that the striking pattern we found in the 2008 data, in which students from metropolitan Minnesota counties rated the ALCs significantly higher than rural Minnesota students on all five of the dimensions, disappeared in 2011. In the most recent set of data, rural students rated the ALCs as strongly as metro students did, and the graphs for metro students are largely flat since 2008. We believe this longitudinal pattern can be explained by a principle we articulated in our 2010 article, namely that *experience matters*. More specifically, the more experience students have with an educational technology, the more positive a contribution they report technology making to their education. In 2010 we hypothesized that metro students may be more positively disposed toward the ALCs because they have had more access to technologically enhanced facilities similar to the ALCs in their secondary education than rural students and/or more experience with the sort of student-centered teaching techniques the ALCs facilitate. With the opening of the STSS building on the University of Minnesota campus, all students — including those from rural counties — are far more likely to have experience learning in an ALC than they were in 2008. The idea that experience matters therefore explains not only the initial gap in reactions between metro and rural students but also the later elimination of that gap.


Engagement
4.00
3.00
2.00
1.00
2008**
2009
2011
Rural
Metro


Enrichment
4.00
3.00
2.00
1.00
2008*
2009
2011
Rural
Metro


Flexibility
4.00
3.00
2.00
1.00
2008*
2009
2011
Rural
Metro



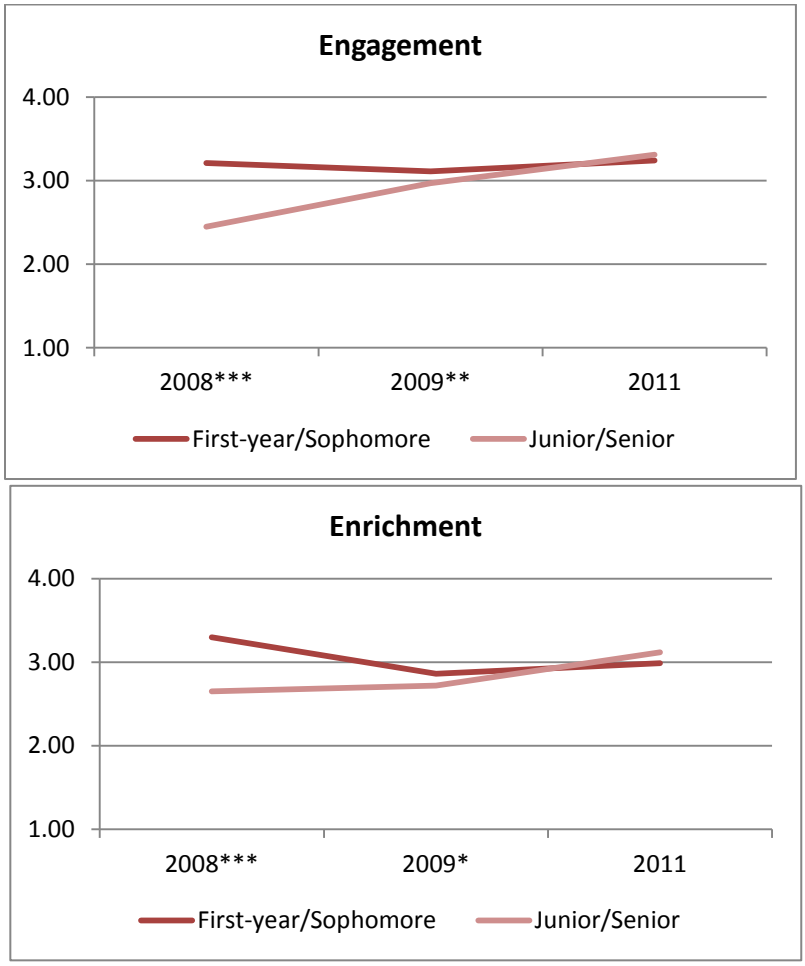
*p < .05; **p < .01; ***p < .001

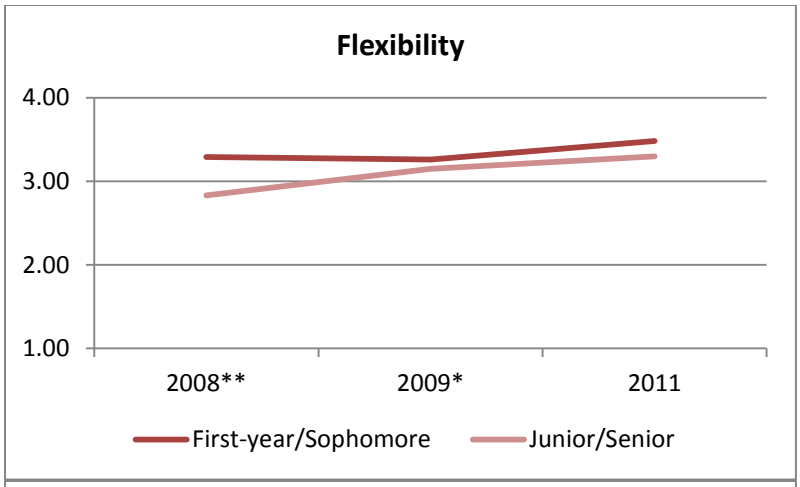
NOTE: 4.00 = Strong agreement that Active Learning Classrooms (ALCs) contribute to respective construct; 1.00 = Strong disagreement that ALCs contribute to respective construct.

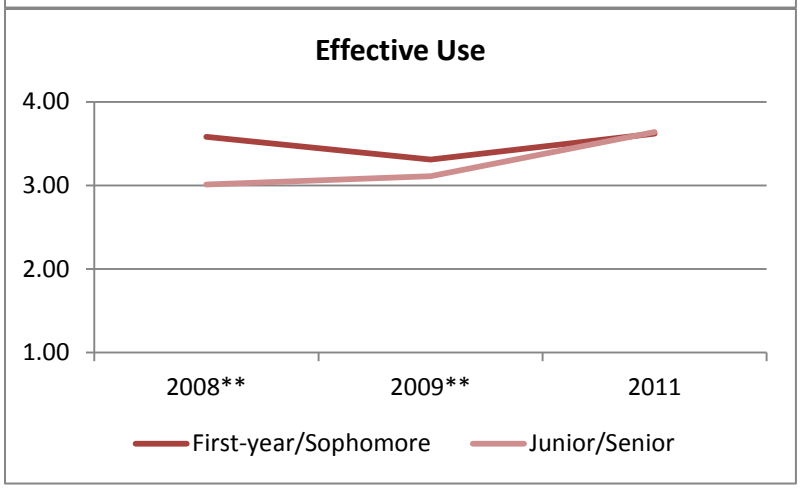
Figure 1. Student Perspectives on Impact of Active Learning Classrooms, Rural versus Metro Students, 2008–2011

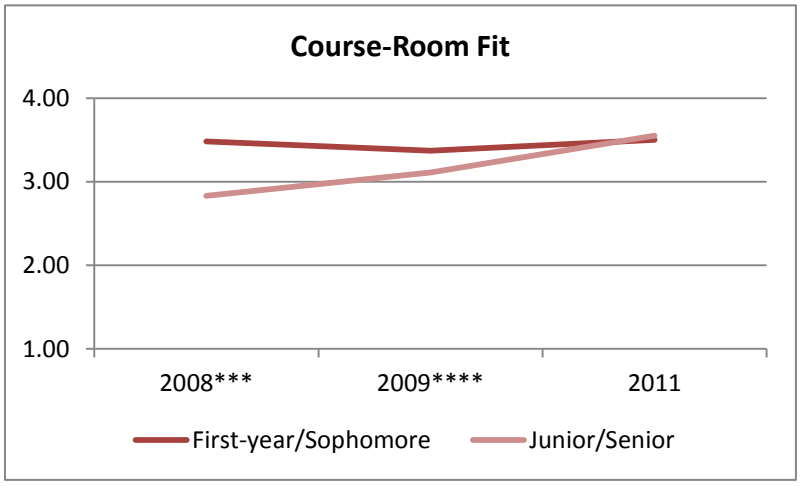
Upperclassmen and Underclassmen

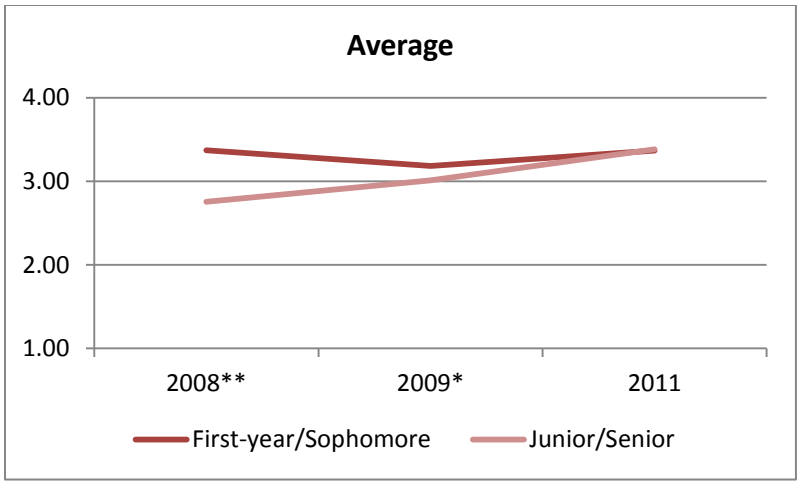
The data displayed in Figure 2 show that the pattern of significant differences between upper- and underclassmen in their reactions to the ALCs that we found in 2008 had also disappeared in 2011. In our earlier article, we hypothesized that early-career students are better disposed toward the ALCs, but that as students move through their college careers, they become socialized to expect delivery-mode instruction in traditional classrooms and as a consequence react more negatively to innovative learning spaces.




Flexibility
4.00
3.00
2.00
1.00
2008**
2009*
2011
First-year/Sophomore
Junior/Senior


Effective Use
4.00
3.00
2.00
1.00
2008**
2009**
2011
First-year/Sophomore
Junior/Senior


Course-Room Fit
4.00
3.00
2.00
1.00
2008***
2009****
2011
First-year/Sophomore
Junior/Senior



*p < .01; **p < .01; ***p < .001; ****p < .0001

NOTE: 4.00 = Strong agreement that Active Learning Classrooms (ALCs) contribute to respective construct; 1.00 = Strong disagreement that ALCs contribute to respective construct.

Figure 2. Student Perspectives on Impact of Active Learning Classrooms, Underclass versus Upperclass Students, 2008-2011

Of course, many of the upperclassmen we surveyed in 2011 were underclassmen in 2011. The question is why the response to the ALCs of juniors and seniors in 2011 is statistically identical to that of freshmen and sophomores when the two groups diverged so dramatically in 2008 and 2009. We believe that *experience matters* here, much as it did in explaining the data on rural and metro students. The opening of the STSS building has brought about a dramatic increase in the proportion of students with experience in ALCs, and this has meant that students are no longer so thoroughly socialized into a culture of lecture-centered learning, thus the transition from freshman to senior does not undermine students' positive reactions to new learning spaces.

Endnote

1. Internal communication, STSS Assessment Committee, summer 2011.