

Classroom Advisory Subcommittee (CAS)
April 18, 2016
Minutes of the Meeting

These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate, the Administration or the Board of Regents.

[**In these minutes:** Becoming an Active-learning Enabled Campus]

PRESENT: Kevin Smith (chair), David Crane, Jeff Lindgren, Mary Steffes, Susan Spanovich, Maria Sera, Ryan Bean, Susan Staats

REGRETS: Luke Odenthal, Chris Dovolis, Jeff Lindgren

ABSENT: Roberta Kehne, Michael Hofer, Kent Kirkby, Suvadip Sinha, Ju Ae Kim, Ali Sweidan

GUEST: Professor Robin Wright, College of Biological Sciences

Becoming an Active-learning Enabled Campus: Kevin Smith, chair, welcomed the committee and asked members to introduce themselves. He then spoke about the history of the Learning Space Master Plan (LSMP) which the committee had developed in previous years. He explained that the LSMP was proposed as a sort of guiding principle for what the University might accomplish if thinking about learning spaces was at the forefront of discussions. He then introduced Professor Robin Wright, College of Biological Sciences, a vocal proponent of active-learning.

Wright shared a presentation she and her colleagues had given at the Council for Undergraduate Education, specifically as it pertains to active-learning spaces. She said the AAU has been actively discussing how to engage students in the STEM fields in order to keep the United States competitive.

Wright said that part of the idea behind the push for active-learning is to retain more students. Small liberal arts institutions graduate more STEM Ph.D.'s per 100 students who complete their degree than AAU (larger) institutions do, she stated. And the United States produces fewer graduates in Science and Engineering than their international comparators. However, she added, there are changes in the way undergraduates are taught STEM courses. The influence of females in the STEM fields has led to a more cooperative approach to learning, said Wright.

Wright and her colleagues presented at the 2015 "AAU STEM NETWORK CONFERENCE," at which attendees were asked to share the initiatives each institution had the greatest hopes for. The University of Minnesota attendees identified active-learning efforts as one of the University's strengths. Wright said they identified the following aspirational goals at the conference:

- **The University leads the nation in the adoption of empirically validated teaching practices.** For instance, the Teaching Practice Inventory is a tool that allows an instructor to assess how much of the learning that happens in any given class can be adapted to an active-learning classroom. It diagnoses what happens in a classroom that is likely to support student learning. Wright said her department uses this survey and it helps document how much evidence-based learning occurs in a given classroom.
- **The University leads the nation in active-learning enabled classrooms.** Wright shared an example of how even a lecture hall could be transformed: make every other row of chairs able to swivel so that students could turn around to work with the students behind them. She said she know of one biology class with 500 students that moved from formal lecture format to an active learning format. The number of failing students dropped significantly in that class, even though the exam content remained the same. Wright added that evidence-based research on learning indicates that when students are actively involved in their learning, they are more successful.
- **The University leads the nation in replacing standard lab courses with discovery-based research courses.** She said the benefits of discovery-based research stretch beyond acquisition of materials and into creative problem-solving.
- **The University leads the nation in providing training for current and future faculty in evidence-based teaching methods and the provision of material to support the application of such methods.** Wright said that in addition to surveys, it is possible to have observers trained to assist instructors in how actively-engaged their classroom is.

Professor Maria Sera stated that the discussion seemed to focus on STEM classes, but it was also true that the University does not have the greatest four-year graduation rate. She thought that perhaps adapting to active-learning instruction could really assist in improving that rate. She added that one of the University's strengths is that it is a research university and advertising that every subject is taught from a research perspective, in an active-learning setting, could really be a signature for the University.

Smith said that he tries to assess his own classrooms by asking students what most engaged them. He said that to narrow the definition of an active-learning campus to classrooms was somewhat limiting, and he would broaden that to include any place that learning occurs. So, for instance, classes in the horticultural gardens would require adequate Wi-Fi to promote active learning. Wright agreed and said the University could really revolutionize the campus if it wanted to. David Crane said that the Office of Classroom Management (OCM) believes adjacent spaces are also important spaces for learning. Smith added that for those classrooms that cannot be adapted, perhaps the space around those classrooms could be adapted in some way to promote active learning.

Crane said that the University's largest active-learning classroom seats 175, but peer institutions are exploring with 300-seat rooms. He said that the lecture room Bruininks Hall is seen as the premiere room on campus, and is used as a recruitment tool. He would love to reinvigorate the committee by starting with an assessment of current space, and the potential for transition. He believes there is strong support to adapt some of the spaces to be more active-learning enabled.

He thought perhaps the committee could identify a few spaces as pilot rooms to demonstrate what could be done.

Sera asked what it would take to get that “stake in the ground” to make the University the premiere active-learning classroom institution in the nation. Wright stated an upper level administrator needs to decide that it is a priority. She added that she does not know another institution who is better at this than the University, and suggested the committee talk with Bob McMaster, vice provost and dean, Office of Undergraduate Education, as a start.

Ryan Bean thought it would be valuable to have an inventory of those rooms that allow easy, quick fixes to make them more active-learning focused without a lot of investment. Crane added that his office has talked about “ALC (active learning classroom) light” with a goal of getting the minimal elements in play in as many rooms as possible.

Professor Susan Staats said that the Academy for Distinguished Teachers (ADT) could be an ally. She suggested developing a website that could demonstrate how others have used general classrooms for active learning. Cards could be left in each room directing instructors to the website, and instructors could learn from each other. Bean added that perhaps there could also be a place to complain about bad spaces. A “yelp” for classroom spaces, he clarified.

Smith concluded by stating that building support from the various sources previously mentioned would be the best way forward. Perhaps the committee could also talk with SCEP to ask what else could be done, he added. Staats thought the effort should be tied to the Grand Challenges for added support. Smith said he will try to follow up on these items so that when the committee reconvenes in fall, a list of allies will be in place to help. He added that perhaps room inventories could be expanded to include items such as white boards, monitors, etc. to assess and identify current classrooms.

Hearing no further business, the meeting was adjourned.

Patricia Straub
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