Minutes*

Faculty Consultative Committee
Thursday, November 3, 2011
1:00 – 3:00
238A Morrill Hall

Present: Chris Cramer (chair), Linda Bearinger, Avner Ben-Ner, Peter Bitterman, Elizabeth Boyle, Thomas Brothen, Colin Campbell, Carol Chomsky, Janet Ericksen, Caroline Hayes, Russell Luepker, Elaine Tyler May, Jan McCulloch, James Pacala, Richard Ziegler

Absent: Nancy Ehlke, Walt Jacobs, George Sheets, Kathryn VandenBosch

Guests: President Eric Kaler, Provost E. Thomas Sullivan, Senior Vice President Robert Jones

Other: Ken Savary (Office of the Board of Regents), Jon Steadland (Office of the President)

[In these minutes: (1) committee business; (2) the intellectual future of the University]

1. Committee Business

Professor Cramer convened the meeting at 1:00. Committee members had a conversation with the legislative liaisons, Professors Boyle and Hayes, about ways to involve alumni, faculty members, and others in communications with their legislators about the University.

2. The Intellectual Future of the University

Professor Cramer welcomed President Kaler, Provost Sullivan, and Senior Vice President Jones to a discussion of the intellectual future of the University, biannual conversations focused on big-picture matters to help guide strategic thinking. The Committee had prepared a set of points that might be covered:

> Many departments are just getting into the full swing of a faculty search as we speak. What are the attributes that we should be looking for in faculty members for the future? How, if at all, have the skill sets for success changed for the faculty of the future compared to those hired years ago? This question applies to coordinate campuses as well as the TC, even though both the needs, and the changes relative to the past, may be different for different campuses. Are there any contrasts between Minnesota and the rest of the nation's public institutions in this regard? What shall we do (better) to confront the idea that higher education is only about job training?
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> Surrounding this general question, how should a unit's proportion of graduate (and professional) vs undergraduate teaching affect its search for faculty members? Are there skills that are more important for one than for the other? If we want to reduce our graduate population relative to our undergraduate population (as suggested by the size, scope, and mission report), should that affect

* 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 represents the views of, nor are they binding on, the Senate, the Administration, or the Board of Regents.

the way we hire moving forward? Can an undergraduate program be “excellent” without a corresponding “excellent” graduate program?

A report in 2011 listed the U of M as having one of the highest proportions of tenured and tenure-track faculty relative to non-tenure-track faculty in the nation. What benefits accrue to an institution with a strong dedication to the hiring of tenure-track faculty and how are these best demonstrated and communicated both externally and internally?

To what extent, if at all, does balkanization into departments (and colleges, and maybe AHC vs. non-AHC) hinder the evolution of the 21st century university as a teaching and research establishment? The U of M Rochester has been pursuing an innovative "cluster" model of education that seems to be reaping pedagogical rewards for its students to date. Are there good aspects of that model that can be brought to the larger campuses of the U and how might that be accomplished?

Along similar lines, there are many success stories associated with teaching in active learning classrooms on the TC campus. But, effective active learning requires some maximum number of learners per mentor in an ALC, and that number is probably quite a bit smaller than, say, 40. However, many, many courses at the U, particularly introductory ones, have student:instructor ratios of greater than 40. How can resources be brought to bear to reduce class sizes without increasing teaching loads beyond a level that would render the U uncompetitive in hiring compared to other research-intensive institutions?

President Kaler began by saying that he was particularly interested in the last paragraph. He maintained that research universities have the opportunity to drive dramatic change in what students learn and said he would encourage conversations on the mechanisms of the transfer of knowledge. Why not make better use of facilities in the summer, he asked? A three-year baccalaureate degree would be attractive to many students. How might the University deliver instruction, using technology, by putting high-quality materials online and using class time for discussion? Can it offer more service learning, which would provide more experience to students and stretch them beyond their major or minor? A place like the University could move forward on these fronts.

Everyone talks about the need for interdisciplinary research, the President commented. He said he has an anchor that slows him slightly; in his view, one brings value as an interdisciplinary researcher because one knows a discipline. As institutions educate interdisciplinary scholars, those scholars may not know a discipline as well or may not have a discipline.

The President said he would also think about engagement with the state. The University is sometimes seen as Twin-Cities-centric, but it has important campuses in Crookston, Duluth, Morris, and Rochester as well as Extension and Outreach Centers around the state. The University has a distributed system around the state and needs to increase the value of its interactions across the state. The 150th anniversary of the Morrill (land-grant) Act will provide an opportunity to review the land-grant elements of the University's mission.

So there are at least three issues he sees as important, the President said: the question of distance/online learning and making it richer and deeper, modernizing the undergraduate curriculum, and engagement with the state.

Professor Cramer reported that he has taught in the Science Teaching and Student Services (STSS) building and was recently astonished to learn that 47.3% of all freshmen in 2010-11 completed at least one class in STSS. His last iteration had 120 students in the class and he taught in a "traditional" format in one of the large lecture rooms. Rather than teaching in that large lecture format, he would have loved to have put 6-8 students around 15-20 tables and gone to a more guided inquiry model, but the trouble is that one actually then needs "guides"—he would say that nominally an instructor or TA, to be effective, would need to cover at most two or three tables of students during the course of instruction. Unfortunately, neither his department's nor his college's TA budget is large enough to provide that kind of support. Put more generally, NO college has the TA support necessary to turn the University into a place with an "effective class size" (i.e., student-guide ratio) of 15-20 students. He asked the President if he had any ideas about how to better support this kind of learning when the University does have a very significant number of introductory courses with huge enrollments and ever-decreasing TA support for them.

The University needs to be smarter in tackling that question, the President said, so it does things differently and more effectively. He observed that Professor Cramer cannot give an hour to each team of 10-20 students. He noted that in some laboratory classes he has taught, students work in teams and rotate responsibilities so that there is substantial peer-to-peer education.

Professor Chomsky observed that at the institutional level the Center for Teaching and Learning has been thinking about these questions for years and has many resources. It has been a challenge for the Center and the faculty using it to reach the rest of the faculty; one question is how to create internal resources to spread the knowledge and to reward faculty members who do not have the time to spend taking advantage of the Center's resources. There are issues about how to create institutional rewards and incentives. The Center offers great workshops but they are often attended mostly by graduate students and P&A teachers, not faculty members.

President Kaler said this is an instance where a top-down approach does not work well. There are different cultures around campus vis-à-vis teaching, from departments that give it a high priority and put their best faculty in the classroom to departments that may take the approach that good teaching is good enough. Is that acceptable or does the University want to be innovative and change the culture over time?

Professor Ben-Ner recalled that there have been discussions about what makes the University unique or different. One is that it aims to teach leaders and innovators; the President's ideas about how to engage students in learning and how to harness technology would serve this goal and would probably resonate well with the faculty. If such an idea were to be promulgated throughout the University, it would be necessary to give indications to faculty how they could specifically advance it. At a large institution like this one there is a tendency to come up with great strategic ideas at the center but those at the "shop-floor" level—the faculty—are not told how they are expected to advance these desirable ideas. The goals set at the center must be disaggregated to the level of colleges, departments, and especially faculty, with indications of how they could teach differently, do research differently, publish differently, and so on to promote the University’s goals.

To begin a pilot program would not cost a lot of money, President Kaler commented, and the administration should be able to provide funds for innovative teaching.

All of these points have resource implications, Professor May said, which is why this is a difficult conversation. She said that Professor Cramer has identified a problem in delivering high-quality education without TAs. Departments are also bunkered by the budget model, which encourages them to keep dollars within their units.

In terms of the President's comments on interdisciplinary education, Professor May said, the issue is what education at a research university should look like and how it is different from education at other kinds of institutions. She gave one example. When she was associate dean of CLA, one idea that came from then-dean of the College of Biological Sciences, P. T. Magee, was a team-taught course called "Ways of Knowing." The idea was that each faculty member taught five weeks of the year-long class and engaged students in the research work of the discipline. So for five weeks everyone in the class "did" physics, or musicology, or biology, or psychology, or history, or political science. The course was generously funded for three years by the College of Continuing Education, because it involved faculty from several colleges. So it required a top-down model of funding. It was an experiment, to see if this sort of research-based undergraduate course could be more broadly offered. Those who participated concluded it was a tremendous intellectual success—and then the money ran out. They felt that the course epitomized what education at a research university should be. It did not rely on technology, it relied on the ability of faculty members to do something above and outside their regular departmental offerings. But such efforts require money to release people from other obligations. Is that now impossible? It is not, the President responded.

Professor Brothen said that the requirements for liberal-education "core" courses require exactly the kind of approach that Professor May described. But their courses relied on a significant number of departments, unlike the liberal-education courses, Professor May pointed out. Professor Brothen noted a course in his department that had recently been redesigned in innovative ways and commented that to get faculty to do that kind of work, there has to be something in it for them—and it need not be money, it could simply be a change in the schedule.

Professor Cramer said he would flatly assert that if he tripled the time he spent teaching, his students would learn more irrespective of his teaching method. Unfortunately, though, he is not wasting his available time otherwise, so something would have to give if he were to substantially increase the time he spends teaching. The college and department reward system, however, does not necessarily support such a redirection of effort. He added that he was willing to make a controversial assertion, namely, that he is skeptical that there are new methods of teaching guaranteed to be qualitatively better than anything discovered in the last 2000 years and said that there is much good teaching occurring now with traditional methods.

Professor Hayes said, apropos of the President's comments in interdisciplinary work, that disciplinary work is alive and well, as is interdisciplinary research. However, interdisciplinary education (degree programs) is valued but it is also more difficult to deliver. The President had expressed reservations about interdisciplinary work because people might not know their discipline well enough. President Kaler responded that one can go into depth in a discipline, which is the value of disciplinary knowledge. Professor Hayes said that there are different views of what "interdisciplinary" means. She described work in the Human Factors discipline, which is a distinct discipline with a long history, a distinct community and its own journals. But Human Factors is a catalytic discipline that has the most value when paired with others, for example human factors and mechanical design, or human factors and computer interface design. This is true both in the workplace and in how education in Human Factors is

delivered. The Human Factors program is thus offered under an interdisciplinary umbrella at the University, but that is very difficult to make work. Delivering interdisciplinary education is difficult because deans may see it as pulling money away from their college. Her college at present lets her serve as Director of Graduate Studies for the Human Factors program, but if her department needed more teaching, she would have to give up the position, and that is likely true for anyone else who would take the position: interdisciplinary needs can be met only after disciplinary needs are satisfied. She said she would like to see a better way to support interdisciplinary education at the University than the way it is now.

The President observed, in response to Professor Hayes, that the University is very decentralized, and it pays prices and organizational penalties for that structure. There are fixes for the problem she identified but it would mean reducing the funding for disciplinary activities. That is a discussion that could be held. Professor Hayes said she did not see the situation as a zero-sum game. There would be customers for an interdisciplinary program who would not be interested in disciplinary offerings. Then it should be on the table and offered as a program, the President suggested.

Professor Luepker agreed that interdisciplinary education is difficult but went on to ask two questions. One, with respect to technology, is the University's competitor the University of Phoenix? And two, with respect to audience, who are the University's audiences? 18-year-olds? Doctoral students? Certificate students? Retirees? The University seems to be everything to everyone. Where should it go?

President Kaler said the University cannot be everything to everyone. He said he was not sure that Professor Luepker was correct about the audiences because the University and other higher education systems in the state do differentiate among audiences. The University of Phoenix is very valuable for people who need it, who are place-bound or cannot otherwise use a more traditional institution. But as long as there are 18-year-olds, they will want to get out of the house and to college. But those students now have very different expectations about technology—they can see great lectures on YouTube and get free courses from MIT. The University needs to know both its audience and its market, and its ability to leverage those resources with its own, to incorporate that richness in its courses, dovetails with the University of Phoenix model. Part of the value added at the University of Minnesota is not what is in the classroom but is what students learn out of class. One can draw a circle around the 18-year-olds and say that the competition for them is other brick-and-mortar institutions. Graduate students come for research and discovery, and there is the continuing education arena, in which the University has done much but perhaps not in as coherent and connected a way as it could.

Provost Sullivan provided an update on e-education. In the last 15 months there have been four reports on e-education at the University, and all four made valuable contributions to the discussion that goes to Professor Luepker's question. The University last academic year had 1400 completely-online courses and 30,000 University students took one or more online courses. Thousands more took blended courses. All four of the reports tell the University it has great strengths in decentralized units. Concepts emerge from intellectual curiosity, not a central plan, he said. The main recommendation is that the University continue to emphasize decentralized initiatives with a central office to help people get to the right experts for design, product, etc. The expertise is at the University but it is not operationally as clear as it should be to help deliver it where needed. The focus needs to be on communication, collaboration, cooperation, and implementation of best practices established on campus from concept to delivery. The reports also suggest that the University needs a modest budget for seeding initiatives in the departments

and colleges. So there is a rich infrastructure and knowledge sitting in departments that the University needs to capitalize on and spread operationally more broadly.

For traditional students, e-education is a supplement, it does not supplant classrooms. Provost Sullivan said he believes the University can make a modest investment and advance its strengths and advantages. They also recommend, and he agrees, that the University should let faculty members migrate into e-education where they are comfortable and that it not have a highly-centralized office to run all the components of e-education—the creativity should remain in the faculty domain.

Professor Luepker said that infrastructure is critical "for us older guys who are not used to teaching in this environment." He said he has taught a hybrid course and tried without success to establish an electronic connection to an outside expert for a discussion.

Professor Pacala commented that he does a great deal of teaching in the Medical School, with experience in interprofessional education. Teaching professors are told to do more with less and do more e-education. He said he liked the University's decentralized way of doing things, but sometimes with e-education he felt like the archetypal Norwegian farmer out on the plain, isolated and doing everything alone. He said he has been struck by how little discussion and guidance there has been about e-education. What should be the criteria for putting a course online or making it a hybrid? What are the unintended consequences of e-education? In some of his courses, he has reduced some of the e-education material and put back some live instruction in order to help build community among learners. He agreed with Professor Ben-Ner that a little more central guidance or guidelines would be helpful, as would principles on what defines the University and its overarching philosophy of education, and what units should think about. Provost Sullivan said those have been identified in the reports and he can provide them to the Committee.

President Kaler said that the University can provide a structure and guidance.

Professor May asked Provost Sullivan if the University knows who those 30,000 students are. The vast majority, except at Crookston, are traditional students on the University's campuses, Provost Sullivan said.

Professor Chomsky responded to Professor Cramer's point: Increasing teaching time by a factor of three isn't necessary to improve teaching, though--as is true with research--sometimes one has to put in a little more time up front to prepare and then reap the benefits later (more success, but with no more time commitment). It takes time to prepare lectures that can be available online in conjunction with increased small group involvement with students. It takes time to create distance learning materials that can be used later in conjunction with in-class experiences. Once the materials are created, one no longer has to put in extra, or so much extra, time. But there has to be support and incentive to invest that up-front time, in addition to the personal satisfaction from improving student learning.

On a more general issue, and as reflected in Professor Cramer's point about the effects on research time of increasing teaching-related time, there is a tension between the teaching and research sides of faculty work. Faculty have a broader concern about the public drumbeat, in Florida and elsewhere, that only teaching (and teaching students to be job-ready) matters. Some governors, and some in the public, are asking loudly what they are paying for at the university and saying that research is not so important, and ignoring (or discounting) research connections to teaching. That is really a concern

about the intellectual future of the University, and she wondered what the President thought about those concerns.

The President said that Minnesota is almost alone among states in having a single large research university that has the medical school, the land-grant mission, and is near the state capital, so it has advantages that some of its peers do not. The University is recognized as different from MnSCU by opinion leaders, even if they are not sure why it is different. In Florida, the missions are spread over several institutions, which leads to discussions about what Florida is getting for the money, whether from the University of Florida or Dade County Community College. He said he did not believe that Minnesota would see the kind of pressure that is being exerted in Florida, but it is likely that the University would be asked for metrics for how it knows it is doing a good job. There will be standards because the University must know what it is spending its money on.

Professor McCulloch said as she sits in these conversations, she has struggled with how she feels about innovation, and she recalled Professor Bitterman's description of the University as a place that develops leaders and innovators. She said she sees innovation as creativity in an individual or group of individuals, and the University should say that it fosters innovation—and it could be innovation that has nothing to do with technology but rather has to do with the ability to take risks and fail, and the ability to make multiple attempts. She said she hopes the University can seed individuals for innovative work. People are often on fire to do something and just need "permission," permission to pursue it even it if does not work out. That is enlightened management that the University should embrace, President Kaler responded. Professor Bitterman agreed that 90% of the problem is simply permission.

One problem with e-education is that it is marketed as cost-saving, but it is not, Professor Ericksen said. It does not cost less, President Kaler agreed. That message has not been widely disseminated, Professor Ericksen said.

Professor Ericksen went on to comment, referring to President Kaler's remarks about how the University is different, that part of the kind of institution the University is must include that it is a research university with coordinate campuses. If the University faces pressures about what it is and how it is distinct, then it needs to make sure that the distinctions and strengths are clear across all campuses and that the public understands not just how the Twin Cities campus is different from MnSCU but also how the whole University system differs. She said that it is necessary to tie what is learned at a research university to the coordinate campuses as well—what is the difference between Duluth and similar public institutions in the state, or between Morris and other public and private peers? The answer to that question would not be clear in most people's minds.

President Kaler said that driving the "brand" (with apologies for the term) is important, and is part of what the University is trying to do with "Driven to Discover" and other messages. But that is not enough. The campuses are distinctively different and people need to know that.

Provost Sullivan returned to President Kaler's opening point about greater use of facilities and three-year degrees: He recalled that this Committee prepared a report on the implementation of a "full" summer semester. Professor Cramer said that many colleges had noted that they already use the summer for valuable programs and that a challenge to students wishing to pursue full time study throughout a calendar year is that federal student aid can only be used for two of the three semesters in a calendar year. President Kaler said he believed there were ways to finesse the last problem and that it is not

insurmountable. He expressed interest in reading the report and Professor Cramer indicated that he would send a copy forthwith.

Professor Bitterman said, apropos of interdisciplinary research answering big questions, he tends to be old school about disciplines—but there are some big questions that require harnessing the "academic cloud," selecting investigators from four or five disciplines/colleges. What is the best way for four or five faculty members to get together to work on, for example, modeling gene expression, which requires expertise in biology, mathematical modeling, engineering systems science, chemistry and potentially other fields? The administrative complexity is increased further because there will be postdocs and graduate students from each discipline. This is what it takes to compete nationally and answer big scientific questions. At present it is a major administrative challenge to organize such an effort. The University of Minnesota is fortunate in that it has the disciplines necessary to tackle these kinds of problems but there are problems in doing so.

President Kaler inquired about the barriers.

Some faculty members are on nine-month appointments, some on twelve, Professor Bitterman said. Postdocs may be on NIH or NSF training grants. He has worked with Mayo Clinic on research; they have a make-it-happen person—who can even make things happen at the University. If he and his colleagues had to make things happen, it would have taken away from the time to do the science. Does the University not have the infrastructure to do that, the President asked? The job often falls to the PI's departmental support team, Professor Pacala said. If the University is to take on big scientific questions, Professor Bitterman said, there have to be memoranda of understanding between colleges and PIs need to be able not to worry about administrative challenges. Minnesota has the capacity to compete with any university but sometimes its own processes prevent it from doing so. President Kaler said he understood and commented, given the remark about memoranda of understanding, that the University in some ways is rigidly structured and needs to be more nimble and dynamic. He recalled having a similar experience himself and said that those involved agreed to agree; they obtained the grant and allocated the money, which can happen with people of good will. Eventually they get to that point, Professor Bitterman said, but doing so is more complicated at the University, with the various offices that have to be involved. Faculty members see the situation as complex.

Professor Bearinger commented that some interdisciplinary centers have a make-it-work person. Professor Cramer agreed and said the Supercomputing Institute also has one, but he noted that it does require devotion of resources.

Professor Chomsky said that as she listened to this conversation, she concluded that it would be helpful to name the underlying assumption: Both the President and the faculty see this as a partnership to make things happen; they agree about the need to be nimble. There is the mantra, heard more elsewhere, that the faculty are the problem. Her sense, she said, is that the faculty want things to happen, and it is the President's view that faculty are part of the solution, not the problem, but the University needs to make the partnership work better.

President Kaler agreed. This is a large, complex, risk-averse organization that needs to get the barriers down and the pace up. Transactional things take a long time; the processes need to be streamlined so things can happen faster. This is urgent because these processes take staff time that could be better used. But he agreed that "we are all in this together, faculty and staff."

Professor Luepker said that indirect-cost funds loom in the background, because many departments are highly-dependent on them.

Professor May returned to Professor Chomsky's comment about the increasing public and political comment (skepticism) about the value of a college education. She said the President's response is reassuring, that the University is different and that the people of the state feel an ownership in the University. But there are other winds blowing, those asking why states need research universities, claiming that faculty members are lazy, tenured radicals, and seeing public-school teachers as the new "welfare queens." These are all related. And the liberal arts are seen as the most useless. The President has spoken at length about the value of the liberal arts, she said, which has heartened her colleagues, but the public discussions focus on the fields perceived to be the most useful, not the liberal arts. One can talk about the importance of the University to the state, but that usually focuses on areas of endeavor other than the liberal arts. What can be done to include the liberal arts?

President Kaler said he continues to encourage the liberal-arts faculty to tell their stories. He can do so, but they get out when faculty members tell their neighbors about the value of the liberal arts and demonstrate it in concrete ways. What sells is "here's the value of a degree in the liberal arts" and the transformative nature of learning in the liberal-arts disciplines. If he were a liberal-arts faculty member, he would sell the fields as terrific broad education, and if a degree does not lead immediately to a job, students may want to do other things along the way to prepare them for work. Professor Cramer commented that it is important for alumni from the liberal arts to tell legislators that they are gainfully employed and that their degree is in X. President Kaler observed that the Entrepreneur of the Year was an English major. See http://www.csom.umn.edu/news/09/%207/11/Monica-Nassif-2011-University-of-Minnesota-Entrepreneur-of-the-Year.aspx

Professor Cramer thanked the President, Provost, and Senior Vice President Jones for joining the meeting and adjourned it at 3:00.

-- Gary Engstrand

University of Minnesota