University of Washington
Faculty Council on Teaching and Learning
Thursday, May 5, 2011
10:30 a.m. - 12:00 p.m.
Gerberding 142

Meeting Synopsis

1. Approval of Minutes
2. Announcements
3. Planning for a letter to the provost: Literature review on use of technology to increase class size
4. E Books
5. Adjournment

Call to Order
The meeting was called to order at 10:35 a.m.

1. Approval of minutes from April 7, 2011 meeting
The minutes were approved as written.

2. Announcements
Kalikoff said that Scholarship of Teaching and Learning had a great keynote speaker on communication and working with students when they aren't in class.

Martin-Morris said that the small group interested in student engagement and investment in learning would like to have one more meeting during the quarter. Those interested are encouraged to cull through publications describing initiatives helping large institutions develop community.

3. Planning for a letter to the provost: Literature review on use of technology to increase class size
Martin-Morris said that the council has been looking at issues related to educational technology, covering format and quality aspects in the last couple meetings. The concern was expressed that it's important for the administration to know that reformatting a course for blended or distance learning doesn't mean that costs can be reduced while keeping or increasing quality, and that teaching such a course takes the same amount of time.

Deven Hamilton, a research scientist in Medical Education, presented a literature review on using various forms of information technology in higher education. He noted that three articles were sent out prior to the meeting for the council's review: E-Learning –A Financial and Strategic Perspective, by Stephen R. Ruth; Improving Learning and Reducing Costs: New Models for Online Learning, by Carol A. Twigg; and Time Demands in Online Instruction, by J. Michael Spector. Hamilton then gave a presentation featuring models of online learning and notes on quality, time, class size, and costs.
[Attached – Appendix A].

Following Hamilton's presentation, the council held a discussion on the topic. Several points were made, including:

- There is no conclusive evidence that online education is better or worse. Some studies are old, and the current environment is different.
- We know that online education does no harm, and can argue that it is or isn't better. As tools have gotten more advanced, you can provide interactions and experiences that you can't necessarily provide on a face-to-face basis. Whether that increases the quality of education depends on how well a tool is developed and how it meets the needs of the students.
- Development time must be taken into account, including time spent with the initial development and ongoing maintenance of new technologies, as well as hours spent with students.
- A big issue is the use of adjunct faculty time to save costs, which can lead to a transient, fluctuating, and possibly embittered core of teachers.
- Open course models must be reviewed by instructors to see if they are of use, which takes time. There is no panacea for free, open content.
- We could advocate for a short curated list of the best modules found on the open web and ideas for applying them in courses. In some disciplines, such as the earth sciences, this is already taking place.
- Faculty need support for using these tools, which is also costly.
- Moving courses online requires investment, and will not solve any current budget crisis.
- The expansion of Educational Outreach is caused by reaching an audience that can't come to the university, whereas in departments the motivation is often to do more cheaper.
- A report was made to the Regents by Dave Szatmary from Educational Outreach including a cost- benefit analysis with the conclusion that quality online education is not cheaper than traditional classroom education.
- Students like online content and the ability to review lectures and notes, but there's a limit to this. Building community and collaboration within the class is more difficult as more is put online. It's important to consider not just learning outcomes but also the educational experience, interaction, and campus community.
- The initial starting point for the discussion came from the Regents, who said this is really the future of the university, and from the state legislature saying that the public research university may be going the direction of the newspaper if things aren't figured out. We have to figure out how to talk to people who don't understand or respect teaching and learning as we do.
- Students will not react well to the idea of course offerings coming from public resources – this will not gain the respect of students, and without respect for an instructor, there is no value added by a class. Culling through resources and finding what's worth grabbing takes hundreds of hours of faculty expert time.
- Any good class, whether in person or online, will be more than simply a delivery system. We should want to continue to emphasize interactivity and engagement. There is a complexity of options but the focus needs to be on learning goals.

Martin-Morris was to gather some bullet points from the discussion and distribute them to the council in preparation for a letter to the Provost.

4. E Books (Kelli Trosvig)

Kelli Trosvig, Interim Vice President and Vice Provost, UW Information Technology, gave a presentation on e-books and other devices, describing the technology as another medium to reach and improve teaching. She said the goal is to manage the coming changes so faculty members can enhance learning rather than having competing people coming through the back door. The overall vision is a textbook that can be integrated into learning. She gave a presentation focusing on faculty, student, and publisher perspectives, as well as short and long term plans. **[Attached – Appendix B].**

During the discussion of the topic, the following points were raised:
- Customizing, highlighting, and annotating materials are very good ideas from an intellectual point of view. The question is getting time resources to adapt e-textbooks to courses.
- There are two opposing processes at play: more rapid updates and newer material, but more time necessary for faculty members to keep up.
- The UW is a believer in choice and that we shouldn't dictate what textbook company is used. We have to have deals with all the major publishers to get content in multiple formats.
- To legitimize digital material, recognition must be given for publishing in e-journals, etc.
- Depending on the publisher and model, students can have a wider variety of choices. For example, faculty members could make only certain chapters from a book available.
- Publishers are starting this movement whether or not UW engages. They have huge incentives. We need to figure out how to adopt and drive this change.

Trosvig said that they would start piloting things in the next year and figure out how to support faculty, execute contracts that are device independent, and standardize on some good readers and annotation software, so students and faculty members can be used to the same thing. It must be done with a lot of support: it's not an issue of technology, but rather of people.

Tom Lewis was to continue the e-book conversation in the next council meeting.

5. Adjournment

The meeting ended at 12:02 p.m.

Minutes by Craig Bosman, Faculty Council Support Analyst. cbosman@uw.edu

Present: Faculty: Martin-Morris, Nelson, Wilkes, Salehi-Esfahani, Merati
　　　　　Ex-Officio Reps: Bradley, Corbett, Hornby
　　　　　President's Designee*:* Taylor
　　　　　Guests: Kalikoff, Lewis, Sugatan, Lowell, Kelli Trosvig, Deven Hamilton

Absent: Faculty: Carline (Chair), Kyes, Masuda, Olavarria, Elkhafaifi, Harrison, Yeh, Zierler
　　　　　Ex-Officio Reps: Awan

Online Learning – A new resource

What is Online Learning

Face to
face
instruction
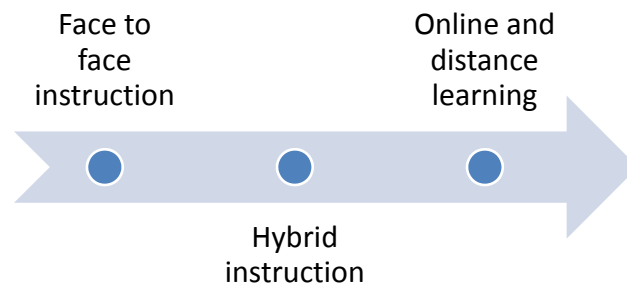
Online and
distance
learning

Hybrid
instruction

Exhibit 1. Conceptual Framework for Online Learning

Learning Experience Dimension	Synchronicity	Face-to-Face Alternative	Face-to-Face Enhancement
Expository	Synchronous	Live, one-way webcast of online lecture course with limited learner control (e.g., students proceed through materials in set sequence)	Viewing webcasts to supplement in-class learning activities
Expository	Asynchronous	Math course taught through online video lectures that students can access on their own schedule	Online lectures on advanced topics made available as a resource for students in a conventional math class
Active	Synchronous	Learning how to troubleshoot a new type of computer system by consulting experts through live chat	Chatting with experts as the culminating activity for a curriculum unit on network administration
Active	Asynchronous	Social studies course taught entirely through Web quests that explore issues in U.S. history	Web quest options offered as an enrichment activity for students completing their regular social studies assignments early
Interactive	Synchronous	Health-care course taught entirely through an online, collaborative patient management simulation that multiple students interact with at the same time	Supplementing a lecture-based course through a session spent with a collaborative online simulation used by small groups of students
Interactive	Asynchronous	Professional development for science teachers through "threaded" discussions and message boards on topics identified by participants	Supplemental, threaded discussions for pre-service teachers participating in a face-to-face course on science methods

Exhibit reads: Online learning applications can be characterized in terms of (a) the kind of learning experience they provide, (b) whether computer-mediated instruction is primarily synchronous or asynchronous and (c) whether they are intended as an alternative or a supplement to face-to-face instruction.

Table from the U.S. Department of Education: Office of Planning, Evaluation, and Policy Development
Policy and Program Studies Service
Center for Technology in Learning

Models for Online Learning

- Supplemental – traditional class with technology based out of classroom activities
- Replacement – Some class time is replaced with online interactive activities.
- Emporium – eliminates class meeting and replaces them with a learning resource center featuring online materials and on-demand personalized assistance (highly dependant on instructional software).
- Fully online – Can include video as well as interactive lectures, laboratory modules, online resources, interactive readings, chat rooms.
- Buffet

Twigg, Carol A. "Improving Learning and Reducing Costs: New Models For Online Learning" *Educause Review* 2003

Considerations for online instruction

- Quality

- Time

- Class size

Quality

- Pew Charitable Trusts, The program in course redesign - 20 of 30 institutions showed significant increases in student learning while the remaining 10 showed no change (50,000 students)

- "The no significant difference Phenomenon" collections and meta-analysis (Clark 1994 , Moore 1994, Cavanaugh 2001, Russell, 2001; Bernard et al2004)

- Online learning is superior to classroom instruction in terms of declarative knowledge outcomes (Sitzmann et al 2006)

    - Control of extraneous variables, selection bias, validity and reliability of instruments, under-weighting of student and faculty perception (Phipps and Merisotis 1999)

- US department of Education 2009 , meta-analysis of studies from 1996-2008
    - Any online content Vs. face to face +.24, P < .01
    - The effect was larger for blended instruction.
    - Time on task had a significantly positive effect on outcomes

- Identifying best practices and aligning method with content and student needs (Kozma 1994).
    - Cognitive efficiency (Cobb 1997), Instructional design demands.

- Medical education - a number of studies that show that online learning and simulations can be effective tools for increasing student performance, making more traditional course components more effective, increasing retention and facilitating continuing education (Kerfoot et al 2010, Cook et al 2008, Granger 2006, Schilling et al 2006, Jang et al 2005).   However, other show no difference in performance (Beeckman et al 2008, Hugenholtz at al 2008, Vandeweerd et al 2007)

Time

- A primary concern in the implementation of online courses is the time demands placed on Faculty(O'quinn and Corry 2002).

- Online instruction has been found to require more time per student than traditional learning (Tomei 2006, Spector 2005, Hislop and Ellis 2004).

- Perceived differences in time spent on instruction may be greater than the actual difference due the shifts in the pacing of instructional requirements (Hislop and Ellis 2004, Thompson 2004).

- The increased demands on time are particularly pronounced during course development, but even after a course has been taught several times, course maintenance continues to require significant time and maintaining quality requires time inputs that increase with the number of students (Pachnowski and Jurczyk 2003).

- Changes in time demand will be dependent on the types of online content (interaction dependant)
  - Time demands mainly due to reading and writing in discussion forums. Time demands varied based on how online interactions were handled (Bartolic-Zlomislic & Bates 1999)

- Faculty time commitments will also depend on the extent to which course material becomes free standing, institutional support and existing redundancies.
  - Ex. the fully online model used at University of southern Mississippi combines 16 sections in to a single section with 1 course coordinator and 4 faculty each focused on a single specialty. Duplications were eliminated and staffing needs were reduced by 25%

Class Size

- Under the assumption that a faculty member is contracted to devote 170 hours per semester to a given class the ideal class size for traditional instruction is 17 while the ideal class size for an online format would be only 12 due to the increased time demands per student (Tomei 2006).

- Courses be limited to 15-20 students - the Nova Southeastern University online program (Lieblein 2000).

- A survey of faculty experienced in both traditional and online instruction - optimal class size from the faculty's perspective was 10-15 students (McKenzie et. al. 2000).

- The for-profit University of Phoenix caps its courses at 13 (Olsen 2002).

- Student attitudes are driven by the level of interaction with the instructor which is in turn determined by class size. While early adopters of online learning believed that online courses would effectively lift the cap on class size, the importance of student and instructor intersections and their associated time requirements have proven to be a strong limiting factor on class size if quality is to be maintained (Sausner 2003).

- Pew Charitable Trusts, The program in course redesign – in at least some instances the number of staff required to teach a course was reduces by 75%

Costs

- Cost savings are derived through specialization

- the for-profit programs that have managed to make online learning efficient and profitable have found that cost saving can better be achieved through the use of adjunct faculty paid through piece-rates. Increasing class sizes results in lower quality, poorer student performance, and higher attrition rates (Ruth 2006).
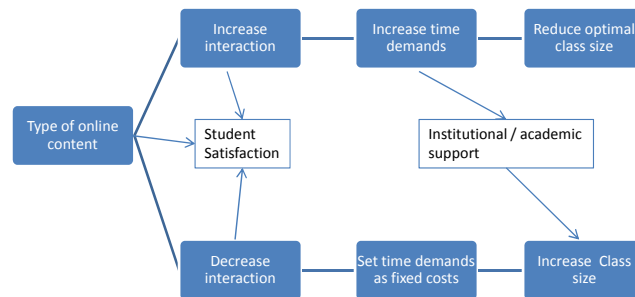
**The next generation of digital learning;
meeting our students halfway**

Kelli Trosvig, Interim Vice-President and Vice Provost, UW-IT

Our students come to campus more comfortable with digital devices and online learning than most of us will ever be

Over the next decade our students will be changing, will we meet them halfway?

- Older student population
- Additional financial pressures as more students pay a greater percentage of their education
- More students working > 15 hours/week
- More access to online courses to supplement placed based education
- Students use social media and other online technologies to enhance learning

Faculty
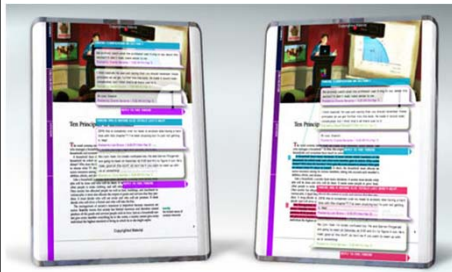
- Customize materials to learning objectives of the course
- Highlight/annotate important passages/ideas
- Link eReserves to relevant text
- Know every student in the class has access to the text
- Ability to apply problem sets, assignments to the text

Students

- Course materials are available throughout the day
- Ability to interact with other students
- Known costs and use of the texts
- Texts delivered to their device of choice; no multiple trips to the bookstore or library

Publishers

- New models of distribution have significant benefits for publishers
- Will incorporate video, simulation, tutorials to drive adoption of eTexts
- Potential to lower costs/increase profits through this model

A comparison by the numbers….

	NEW		USED		eTexts
Retail Price	$ 100.00	$ 100.00	$ 75.00	$ 75.00	$ 35.00
	Yes	No	Yes	No	
Buy Back	$ 55.00	$ -	$ 55.00	$ -	$ -
Net Cost to Student	$ 45.00	$ 100.00	$ 20.00	$ 75.00	$ 35.00
UW Rebate	$ 10.00	$ 10.00	$ 7.50	$ 7.50	$ -
Real Cost to UW Student	$ 35.00	$ 90.00	$ 12.50	$ 67.50	$ 35.00
Available for Future Use		X		X	X

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eText pilots – academic year 2011-2012

- Small number of classes representing a large variety of teaching methods – large lecture, science, math, humanities, business, ?????
- Strong evaluation model for determining what is working and what is not for both the faculty and the students
- Adequate support and tools for the "brave faculty" to chart this new course

What we will need over the long term?

- UW needs a strategy around this to reduce costs to student, maintain flexibility to faculty, and at the same time improve the student learning
- Integration with a Course Management System
- Easy Annotation tools and offline access for students and faculty

Questions?

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