



Teaching

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The center's expanding role supports VCU and its faculty



Joe Marolla, Ph.D.

By Joe Marolla, Ph.D.

I find myself saying this a lot lately, but I truly believe it: These are exciting times at Virginia Commonwealth University. While many other universities are struggling, VCU has positioned itself to be a national leader among our peer institutions. I am very encouraged about where VCU is going in the near future and I am proud to be a part of it. As many of you

know, I will be serving in two capacities — as acting vice provost for instruction and as the director of the Center for Teaching Excellence. Fortunately, these roles are compatible and my efforts in one role will directly support the other. The compass that will guide my work in both areas comes directly from the strategic plan, VCU 2020.

The second theme in VCU's strategic plan calls on us to "achieve national recognition as a learning-centered research university that embraces a world-class student experience." VCU has already made significant strides toward this end, not the least of which was the creation of the new University College. Among other things, the UC will provide a core curriculum, the VCU Compact, to provide students with a foundation of knowledge, skills and attitudes that are essential to succeeding both in college and in future occupations. The curriculum consists of Focused Inquiry (FI) I and II, a two-course sequence offered during the freshman year. These courses will provide students with a small class setting where the focus will be on the development of core skills through the meaningful exploration of multidisciplinary content. I want to be clear here, the manifestation of learning-centeredness in the UC is more than just a set of engaging teaching methods; it represents a commitment to a philosophy of teaching and learning that will ultimately shape everything we do both inside the classroom and out. This is an extremely novel approach to general education at VCU and when we are successful, we will have a model program in which other research-intensive institutions will be interested.

In addition to promoting student engagement in their own learning process, the FI curriculum will promote faculty engagement in learning-centered teaching methods — methods that attend more

to student learning outcomes through formative assessment, active learning, guided inquiry and group discussions. Opportunities to explore these teaching methods are not limited to faculty who teach the FI courses. The CTE offers faculty across the university opportunities to explore, implement, assess and share their teaching experiences with other faculty through workshops, seminars, brown-bag lunches and this newsletter.

In anticipation of the expanding role of the CTE in these ambitious initiatives, two qualified and experienced people have joined our staff. Britt Watwood is the new online learning specialist. He joined higher education after retiring from the U.S. Navy, and has 11 years of online teaching experience. He also previously directed one of the largest online college programs in the state of Georgia. Susan Polich is a new instructional consultant, joining us after 12 years teaching in an allied health field and 20 years in clinical faculty development. Her specialties are active teaching methods, group learning techniques, and student and program evaluation and assessment.

You'll see the changes in VCU and the CTE reflected in this and future newsletters as we expand content to focus on learning-centered theories and practices. We hope you enjoy this issue and that you use the CTE and its many resources to improve and expand your teaching practices.

Inside this issue

Supporting VCU's faculty	1
Team-based learning	2
Resources and services	2
Teaching excellence	3
Small grants projects	4-10
The center's mission	10
Best teaching practices	11
National conferences	11
Fall workshops	12

Team-based learning exercise offers lessons for the future

By Shannon Mitchell

Last semester I used team-based learning in a 300-level economics course. Having some knowledge of TBL — where groups of students work on the same problem simultaneously — I felt ready to attempt an “all-groups, all-the-time” class.

Class participation constituted 15 percent of the course grade. I corrected group work, but did not include it in students’ grades. To ensure that students completed the assigned readings, they took a short, easy quiz on Blackboard prior to class. Once in class, I provided a list of learning objectives for each chapter and exercises for the groups to complete, and I circulated among teams as they worked.

The first few classes seemed a great success. But during the fourth class, as we got deeper into the material, a revolt occurred. Common student reactions included the following:

- » Is this what the whole class is going to be like?
- » How do we know if we are right or wrong?
- » Why aren’t you doing your job? You should be teaching us.
- » What’s going to happen to my grade point average?
- » Telling us to “think more about that” isn’t really that helpful.

After this, I began to review the exercises at intervals during class, with supplemental mini-lectures as needed. I had concerns that the exercises I was assigning weren’t well-designed, but couldn’t pinpoint the problem.

Around the fifth week of classes, the Center for Teaching Excellence brought Larry Michaelson, co-founder of TBL, to campus for two presentations on the teaching method. I could not attend either session, but I did read his book, “Team-Based Learning: A Transformative Use of Small Groups in College Teaching” (Stylus Publishing, 2004), and learned what I was doing wrong. I made several key changes after spring break, including:

- » dividing the material into larger chunks of three to four chapters
- » making the online quizzes harder and having students retake them in class as group quizzes
- » designing exercises that forced groups to arrive at a decision (Sets of true/false questions were particularly good at this.)
- » sharing each group’s answers with the class on the board (This made their work more public and more important to them.)
- » asking groups why they answered as they did and allowing groups to change their answers after listening to the others (This was a great way to uncover misperceptions, and I would discuss the correct answers only after time for thought.)

Class moved much faster this way, and interest was higher once the groups’ answers were made public. Student feedback at the end of the semester included the following points:

- » Many suggested using a combination of group work and lectures.
- » Many said how comfortable they felt asking questions or speaking up in class. One student said coming to class felt “like coming home to family.”
- » There was lots of positive feedback relating to the changes I made midsemester, but some students confessed that early frustrations left a bad impression of the whole semester.
- » Some said the class sessions were useless and that they learned more on their own.
- » Some students were very positive about the TBL experience, and a couple of students explicitly encouraged me to keep using the approach.
- » Several students suggested that the group work should be graded.
- » Many commented that they learned much more from my lectures than from the group. Indeed, students had been begging for lectures.

For me, one negative of the semester was the low level of learning shown on exams. Also, this method requires a lot of extra preparation as it is difficult to design high-quality exercises. Nevertheless, I might try TBL again the next time I teach the course.

I think that I’ve learned some key lessons to improve learning outcomes using TBL. I also feel strongly that it is good for students — and especially good for average students — to be forced to work more independently. Students are much more comfortable being told answers than they are being forced to answer questions, and when students are uncomfortable, they will do their best to make their professors uncomfortable. But some discomfort may be a good thing.

Shannon Mitchell is an associate professor of economics in Virginia Commonwealth University’s School of Business.

CTE resources and services

Teaching with Blackboard
Classroom assessment techniques
Consultations
Faculty expertise database
Using LessonBuilder
Using Respondus
Teaching assessment/evaluation

Teaching excellence starts with personal change

By Britt Watwood, Ed.D.

Two books in recent years, while published for the corporate world, suggest change that is also appropriate in the world of education.

Tom Peters wrote “Re-Imagine!” (DK Adult, 2003) to shake up corporate America. Anyone who has seen Peters in person knows that he is high-energy and passionate about change. Through his book, he preaches an end to relying on corporate responsibility. Instead,

each individual needs to take responsibility for his own business success. He suggests that a metaphor for this new world is “Control-Alt-Delete.” (One can bounce out of a program by hitting three keys.) This metaphor is equally applicable to today’s student body.

Diane Oblinger, in a 2003 Educause article, noted that the millennial generation gravitates toward groups, are fascinated by technology and spend more time on homework than TV. However, millennium students appear to have less loyalty to an institution and more loyalty to programs. They see nothing wrong with stitching together a variety of courses across multiple institutions to achieve the degree they desire.

Peters’ strongest point suggests that businesses need to move beyond providing customers a service to providing customers an experience. He notes that Maxwell House sells coffee — Starbucks sells an experience. Suzuki sells motorcycles — Harley-Davidson sells a lifestyle. Millennium students are attracted to programs that engage them and give them an experience. Whether at the class level or the department or school level, faculty should be asking, Are we providing Starbucks-level education or a less exciting alternative? Starbucks built a loyal base by providing a refuge from both home and office. Building a Starbucks-level education experience would likewise enhance both demand and retention in programs.

The second book worth reading by all in higher education is Tom Friedman’s “The World Is Flat” (Farrar Straus Giroux, 2005). Friedman points out 10 events in the past decade that have altered the corporate world, creating a level playing field for competitors worldwide. Woven through these 10, and underlying all aspects of change, is the impact of the Internet. Remarkable change has and continues to occur in a world increasingly wired and connected. This allows small companies to act big, big companies to act small and all companies to interact with customers on a 24/7 basis worldwide.

In the past decade, entirely new organizations have emerged to serve this 24/7 customer base, such as eBay, Amazon.com and Blackboard Inc. Established companies have evolved to include 24/7 availability. While I am not advocating a customer-relationship management approach to higher education, I do believe that higher education has been among the slowest to adapt to this wired world. Aspects of this world show up in online and blended/hybrid classes, but there is not a consistent or concerted effort across academe. Oblinger notes that the millennium student is equally at home in virtual communities as physical communities. Technology can be used to create the connectiveness they desire and build a true learning community.

Putting the two books together opens a new vision of 21st century higher education. Using the tools of technology, programs can develop learning experiences that meet the individual needs of each student, build collaborative communities of learners, develop graduates adept at research and critical thinking and provide this in an always-available environment.

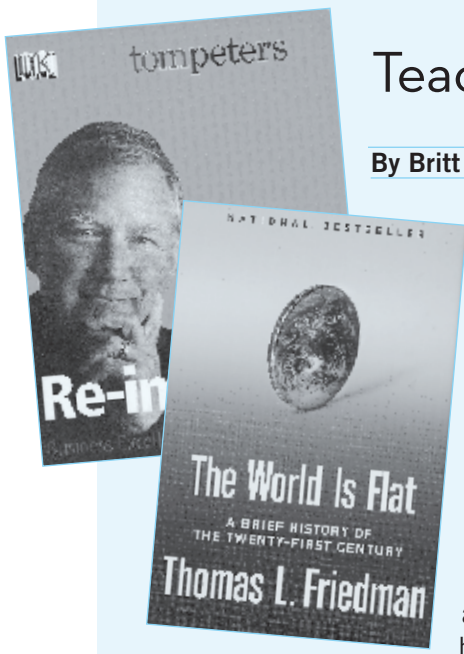
I recently had a student point out to me that “e-mail is for old people,” noting that she wanted to be able to “IM” (instant message) me when questions occurred to her. When one begins to re-imagine education, one sees new ways of building connections with students.

Peters notes that the first step in a dramatic organizational change is obvious — dramatic personal change. As has always occurred in higher education, faculty lead the adoption of new methodologies. We have students enrolling who are adept at multitasking, employ multiple means of communication and are anticipating using these skills in their academic journey. There are a variety of tools available to tap into these skills — electronic discussions, ePortfolios, podcasting ... the list goes on and grows daily. Our role as faculty has not changed. We model the performance we expect of our graduates. Those “models” should include the integration of the virtual world that Friedman writes about.

I do not agree with Peters and Friedman on all things, but reading their books certainly makes you rethink and re-validate some fundamental beliefs.

The Center for Teaching Excellence promotes and encourages “a culture of excellence in teaching” at Virginia Commonwealth University, and these two books suggest that the definition of excellence is evolving. At its core today is increased connectiveness with our students, increased collaboration in the learning process and increased expectations of a rich learning experience. Friedman suggests that the best companies regularly examine themselves and continually evolve. The center stands ready to help faculty with that dramatic personal change necessary for success in a flat world.

Britt Watwood, Ed.D., is an online learning specialist at the VCU Center for Teaching Excellence.



CTE grants stimulate innovation in teaching and learning

The Center for Teaching Excellence annually requests proposals from Virginia Commonwealth University faculty for small grants to support their teaching efforts. The program is broadly conceived and can include requests for money to attend teaching conferences, purchase software, create a new course or undertake research projects that would benefit instruction. Proposals are evaluated on the potential for faculty development in the area of teaching, the impact on student learning and the relationship to departmental, school or university goals. Following are the 2006 funded projects. For information on submitting a proposal for 2007 grants, call (804) 827-0838 or visit www.vcu.edu/cte.

Communication Skill Development for Dental and Dental Hygiene Students

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School of Dentistry
Department of Periodontics

Project overview

A series of exercises were offered to second-year dental (D2) and third-year dental hygiene (DH3) students on communication skill development. D2 and DH3 students received information on the fundamentals of communication protocol, observed faculty modeling of effective communication in the dental setting and were given the opportunity to practice their communication skills with simulated patients. Simulated patients were played by fourth-year medical (M4) students. M4 students and fourth-year dental (D4) students gave feedback to D2 and DH3 students on their communication skills immediately following their interaction with the simulated patient.



Objectives

The objectives of this project were to provide D2 and DH3 students with information on effective communication, model effective patient-clinician communication, have D2 and DH3 students practice their communication skills with simulated patients, have D2 and DH3 students assess their own communication skills, and have D4 and M4 students provide feedback to D2 and DH3 students regarding their communication skills.

Description of teaching activities in 2006

This project added nine curricular hours of formal teaching and assessment of students' communication skills to the curriculum of Virginia Commonwealth University's School of Dentistry. Descriptions of the exercises are described below:

- » LECTURE. Features of more and less effective clinician-patient communication relating to how clinicians communicate with patients and what clinicians communicate to patients were presented.
- » LABORATORY. Role-playing among faculty members modeled more and less effective communication between clinician and patient. Students used checklists to identify features of effective communication and assessed the clinician's skills before engaging in their own role-playing exercises.
- » SIMULATED CLINIC SESSION. D2 and DH3 students were divided into small groups to portray clinicians in a role-playing exercise with simulated patients played by M4 students. Each D2 and DH3 student had the opportunity to explain the dental findings and treatment plan to one of three simulated patient personas while their group mates observed. D2 and DH3 students assessed their own communication skills and then received immediate feedback from their group mates on their skills. D4 and M4 students facilitated this feedback session. M4 students were used for their extensive degree of formal communication training while D4 students have greater direct clinical experience. An interdisciplinary team of faculty from VCU's schools of Dentistry and Medicine oversaw the instruction provided. Prior to these exercises, D4 and M4 students participated in a two-hour training session where instruction on role-playing and facilitating constructive feedback were provided. Again, an interdisciplinary team of faculty from VCU's schools of Dentistry and Medicine participated in this training session.

Project assessments and results

Data were collected to assess D2 and DH3 students' learning of communication protocol and their perceptions of the exercises. Project assessment and results are described below:

Learning of communication protocol

OBJECTIVE: To test students' knowledge of communication protocol before and after a series of interactive exercises (as described above).

METHODS: Upon completion of the exercises, 11 multiple-choice questions were administered to D2 students immediately prior to (pretest) and six weeks after (post-test) the exercises focusing on communication skills. Data were analyzed using a paired samples t-test ($\alpha=.05$) and Cohen's d measure of effect size.

RESULTS*: Eighty-eight percent (84/95) of D2 students completed both the pretest and post-test. There was a statistically significant difference between the pretest ($X=55.7$; $SD=12.3$) and post-test ($X=60.8$; $SD=18.0$) scores ($t=-2.345$; $p=0.21$). However, the Cohen's d measure of effect size demonstrates little practical significance between these scores ($d=0.33$).

DISCUSSION: Although students' scores improved from pretest to post-test, a greater gain was anticipated. It may be that the multiple-choice questionnaire did not allow for evaluation of the subjective aspects of communication protocol. Further study is needed to determine the exact gains in knowledge of communication protocol as it is a fundamental component of effective communication in the health care setting.

**Data analysis and results prepared by Jonathan Gorman, Sonya Lawson, Ph.D., and Sharon Lanning, D.D.S.*

Retrospective student assessment of communication skills exercise

OBJECTIVE: To investigate students' perceptions of the impact of an innovative communication skills exercise after one year of real patient experience.

METHODS: After one year of clinical experience, the matriculated D2 and DH3 students completed a survey that asked them to rate the value of the exercise immediately before (pretest) and one year after their real patient experience (post-test). The 20-item survey used a five-point scale (1=very low, 5=very high) focusing on features of effective clinician-patient communication such as the students' ability to recognize verbal and nonverbal cues, increase accuracy of history taking, motivate and relate to patients, and relay information to patients. Data were analyzed using a paired sample t-test and Cohen's d measure of effect size.

RESULTS*: The response rate was 73 percent (69/94). After one year of real patient experience, students found the exercise to be valuable ($X=3.75-4.14$). When comparing pre- and post-test values, improvements were seen in all areas with t values that ranged from -3.87 to -5.71 ($p=.000$). In addition, the Cohen's d test demonstrated moderate to high practical significance with a range of $d = .55-.91$.

DISCUSSION: It appears that students felt the skills gained from the simulated exercise were transferred to actual patient care. It is possible that their perceived improvement was a result of continued clinical experience and not solely related to this exercise. Further study is needed to discern the extent that this training contributes to patient care as data are based on subjective and not objective assessment.

**Data analysis and results prepared by Benjamin Crowley, Sonya Lawson, Ph.D., and Sharon Lanning, D.D.S.*

Impact on teaching, learning and scholarship

This project enhanced students' knowledge of effective clinician-patient communication protocol. Students frequently reported that they learned to limit the use of medical and dental jargon, speak with confidence, recognize verbal and nonverbal cues, verify

patients' understanding of clinical decision making and develop strategies to motivate patients as a result of this project. Students also reported that they were able to transfer what they learned in the simulated environment to the non-simulated. DH3 students appear to be less satisfied with some aspects of the exercises compared to D2 students. It may be that D2 students have less experience with speaking in front of a group or interacting with a diverse group of health care professionals. Additionally, the complexity of the simulated patient cases may have favored D2 students' knowledge base and their future scope of practice. Students' perceptions of these exercises may have been influenced by gender; however, a larger sample size is needed to further investigate this potential difference. Further study also will focus on the impact of these exercises on real patient care using objective measurement. Data will be used to further enhance the communication exercises for all students involved.

This project added nine curricular hours of formal teaching and assessment of students' communication skills to VCU's School of Dentistry curriculum for dental and dental hygiene students. One hundred and eighteen D2 and DH3 students participated in this project during spring semester 2006. Prior to this project, students received approximately two hours of formal training on communication in the dental setting and no formal assessment of their skills. This project has served as a pilot for a new communication skills curriculum being developed for implementation during the 2007-08 academic year. It will span across the first five semesters of the pre-doctoral and dental hygiene programs and add 15 curricular hours of formal communication skills training.

Faculty members representing three departments within VCU's School of Dentistry and two departments within the School of Medicine participated in this project's development and teaching of students' communication skills. Currently, the School of Medicine has established classroom and clinical exercises devoted to teaching and assessment of students' communication skills. Faculty members at the School of Dentistry obtained guidance from these experienced academicians, which was essential for the success of this project and the development of the new communication skills curriculum. Resources were shared and collaborative relationships fostered as health sciences faculty members worked together. Collaboration among faculty members across disciplines supports the university's strategic plan, VCU 2020.

Four undergraduate dental students are working on educational research projects associated with the assessment phase of this project. Two students received A.D. Williams Student Research Fellowships for their proposals. Another student's work is being supported by the Academic Dental Careers Fellowship Program of the American Dental Education Association. Four student abstracts were submitted for presentation at ADEA's annual session in Louisiana next fall. Therefore, this project has provided scholarship opportunities for students and faculty members and has contributed to the dissemination of information on the impact of formal communication skills training in dental education.



Bill Hartland (left) and Chuck Biddle conduct a poster presentation with an audiovisual setup of one of the simulation-based video teaching vignettes at a patient safety conference in Washington, D.C.

Simulation-Based Video Teaching Interventions

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Department of Nurse Anesthesia

In the clinical education of nurse anesthetists, faculty and learners must navigate the complex domain of achieving educational goals while providing quality and safe care to the patient; an inherent tension in this process is inevitable. In the past, we developed a number of brief (four- to eight-minute long) audiovisual presentations simulating real-life situations that drew clinicians into a scenario in a powerfully vicarious manner that had a high cognitive imprint. We saw a tremendous opportunity for developing these clinician-oriented patient safety vignettes for student learners.

I was very fortunate to receive a grant from the Center for Teaching Excellence for my project, "Simulation-Based Video Teaching Interventions." When I applied for consideration, I included the following as objectives in my grant application:

- » Employ highly realistic SBVTIs to facilitate nurse anesthesia students acquiring essential clinical skills and knowledge.
- » Enhance the critical thinking of students in the complex domain of anesthesia critical care with SBVTIs.
- » Develop a collaborative teaching effort with students in developing modules that present essential patient safety-related course material using SBVTIs.
- » Design curricular modules that are based upon and address the diverse learning styles of adult learners that can be accessed using SBVTIs.
- » Increase the potential for other members of the faculty to integrate newly developed SBVTIs into their classroom approaches.

- » Evaluate the efficacy of SBVTIs in the educational process of anesthesia graduate students and assess the potential application in other teaching domains.

The CTE grants program funding resulted in all objectives being met or exceeded. Benchmark indicators of success include the following:

- » Two SBVTIs were produced. One involving anesthesia machine/device setup and safety considerations. A second teaching vignette, on the complex task of inserting a breathing tube into a patient (endotracheal intubation), also was produced. Both of these are now staples in the curriculum of our graduate program here at Virginia Commonwealth University and have been rated outstanding by the student users.
- » As a result of these films, a collaborative (and soon to be funded) effort has been arranged between the department and the American Association of Nurse Anesthetists (Chicago) to continue to produce such films as a continuing education program for clinical nurse anesthetists nationwide. A series of vignettes, or SBVTIs, will be produced across the next two years that will be specifically directed at the National Scope and Standards of Clinical Practice for Nurse Anesthetists. The funding provided by CTE was directly responsible for this collaboration, as it allowed us to produce realistic, high-quality educational materials.
- » At the Virginia Patient Safety Convention held in Richmond, Va., in May, I received the Best Presentation in Patient Safety Award for a CTE-funded SBVTI on machine/device safety. This simply would not have been possible without the generous funding from CTE. This award brought local and national attention to the patient safety work we are doing here at VCU.
- » At this year's national meeting of the American Association of Nurse Anesthetists, Dr. Michael Fallacaro, department chairman, presented data and a portion of a SBVTI that resulted from the CTE program. The film and lecture received accolades (a standing ovation) from the more than 500 people in attendance. The evaluations noted that the approach was novel, innovative and an attractive alternative to traditional teaching approaches.
- » We are in the process of publishing an ongoing outcome study of the impact of SBVTI as an alternative and valid teaching strategy.

All of the above (and more) has been a direct result of the funding I received from CTE. I am pleased to say that the initiative has exceeded our initial expectations and that the offspring of the funded project has set into motion patient safety and scholarly activities for the Department of Nurse Anesthesia that will continue for many years to come.

Evidence-Based Resident Psychotherapy Education

Drs. Robert K. Schneider, J. Randy Thomas, William T. Nay and Katherine C. Smith
Virginia Commonwealth University Medical Center
Department of Psychiatry
Ambulatory Care Division

Overview

The Department of Psychiatry uses experienced community mental health clinicians to provide training and supervision to psychotherapy residents. Personnel and material resources, however, have limited how quickly and efficiently we can educate, engage and communicate with our adjunct faculty about program changes. The past year has witnessed considerable change in the department's methods and goals with respect to psychotherapy training. In particular, the department has created psychotherapy clinics that teach the use of evidence-based tools in therapy practice, as well as incorporating adult learning theory in the ways in which we teach residents.

The Center for Teaching Excellence small grants program award made it possible to provide invaluable training to our adjunct faculty supervisors in the supervision of psychotherapy and the communication of department goals with respect to evidence-based practice and multi-modal teaching.

Objectives

Our goals were to:

- » educate our clinical faculty supervisors on live and videotaped observation of psychotherapy, providing direct feedback on videotaped psychotherapy segments
- » educate our clinical faculty supervisors on administration, scoring and utilization of normative outcome and process measures to increase the evidence-based accountability in clinical practice
- » train supervisors in the development of individualized learning plans for their residents
- » increase clinical faculty engagement in the residency program and the psychotherapy clinics, in particular
- » test the use of virtual private network (VPN) access to the department server for resident education purposes

Educational workshop

On the evening of May 17, 2006, the department's Ambulatory Care Division welcomed 24 community-based clinical faculty members and 10 department-based faculty into our Nelson Clinic offices for a rotating, three-node training curricula. Following opening comments about the goals and purposes of the meeting by Dr. Robert Schneider, division chair, and Dr. Susan Waller, the newly appointed clinical faculty liaison, the group was divided into three

sections. Rotating to each presentation, each faculty member took part in three modules:

- » adult learning theory and applications within the department's training curricula (led by Drs. Robert Schneider, John Urbach and Mike Camp)
- » evidence-based psychotherapy supervision and practice and an orientation to VPN tools for privacy-protected data sharing/teaching (led by Drs. Randy Thomas and William Nay)
- » use of library services in evidence-based supervision and practice (led by Barbara Kane and library staff)

As part of the evidence-based psychotherapy supervision session, we asked for supervising faculty who are interested in participating in the VPN pilot project and who had the means (high-speed Internet connection) to use the service. Combined with specifics of who would be supervising in the upcoming academic year, members were later identified to participate in the test project.

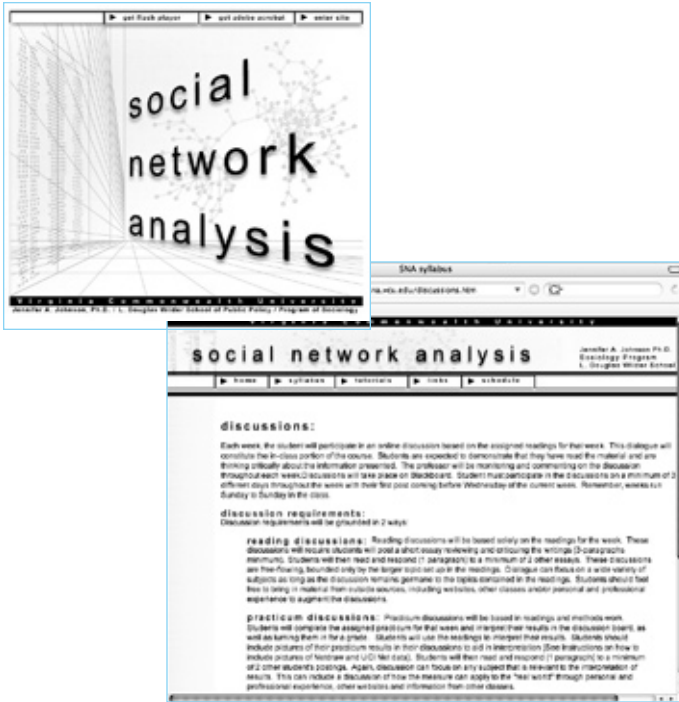
Assessment procedures and results

Two in-house questionnaires were devised to tap the perceived utility of the content of the evening's workshop and supervisors' endorsements of evidence-based supervision behaviors, up to the time of the workshop. The content questionnaire was composed of nine questions rated across four domains:

- » teaching (adult learning theory module)
- » technology (library services module)
- » techniques (evidence-based psychotherapy module)
- » overall impressions

Using a Likert-type rating scale of 1 (not at all useful) to 5 (very useful), the average teaching rating was 4.2, the average technology rating was 4.4, the average techniques rating was 4.6 and the average overall impressions rating was 4.6. The ratings and qualitative review of summary contents suggest that clinical faculty members found the workshop potentially very useful in their future supervision practices, and a number noted the hope that such educational opportunities will emerge on a rolling basis.

The potential utility of the workshop was strongly reinforced by the results of the evidence-based psychotherapy behaviors questionnaire. For example, to the question of how often a supervisor had been able, or asked, to observe (in vivo, videotape or audiotape) a psychotherapy session of his trainee, the typical response was infrequently. Similarly, the average response to "how often have you asked to see objective measures of ..." also was infrequently. Overall, the findings from the questionnaire suggest that the workshop targeted a direct need in the psychotherapy training program, and the participants' attitudes (from the first questionnaire) indicate probable positive change for the training program. A follow-up administration of the questionnaire is under way to ascertain the actual effect of the workshop in changing behaviors.



The Web site at www.sna.vcu.edu includes a syllabus, tutorials, links and a schedule outlining the modules for the eight-week course in social network analysis.

Social Network Analysis Collaborative Learning Web Course

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College of Humanities and Sciences
L. Douglas Wilder School of Government and Public Affairs
Sociology Program

The primary objective of the project was to create an online graduate course in social network analysis. The course will be an online experiential learning course offered beginning in the summer of 2007. The course is designed to introduce students to the basic measures and literature of social network analysis as a social science methodology. The specific objectives were threefold:

- » Develop a graduate-level curriculum for teaching SNA.
- » Develop a Web site for the course.
- » Develop collaboration opportunities for “collaboration internships” through networking inside the L. Douglas Wilder School of Government and Public Affairs.

The first two objectives were developed in conjunction with assistance from a teaching assistant and a graduate student. Initially, the grant was written to support a 2006 spring semester course release. However, because of the transition of the sociology program to the Wilder School, a shortage of adjuncts and a shortage of course offerings, I was not able to take a course release. Instead, I hired two people to help me with the work.

Developing a graduate-level curriculum

First, I hired a teaching assistant for my “Sociology of Sex and Gender” course. She was a new graduate of our program and was interested in gaining teaching experience. She assisted with course management and a Friday lecture. I used this time to review established syllabi on the Web, reading/reviewing literature, piecing together a reading list and developing a course curriculum.

See the Web site at www.has.vcu.edu/soc/sna or www.sna.vcu.edu for the exact layout and course materials. I began with the first site and petitioned for the Web address of the second, which was recently dedicated to me and I am in the process of migrating the site to the new address.

The reading for the course is designed to cut across interests. I did not want the course to be too narrowly focused on one application of SNA such as terrorism and homeland security. As such the readings are broad and include the following:

- » Erickson, B. (1980). “Secret Societies and Social Structure.” *Social Forces*, 60 (1), 188-210.
- » Granovetter, M. (1973). “The Strength of Weak Ties.” *American Journal of Sociology*, 78 (May), 1360-1380.
- » Krebs, V.E. (2001). “Mapping Networks of Terrorist Cells.” *Connections*, 24(3), 43-52.
- » Laumann, E., et al. (1993). “Monitoring AIDS and Other Rare Population Events: A Network Approach.” *Journal of Health and Social Behavior*, 34, 7-22.
- » Levendosky, A.A., et al. (2004). “The Social Networks of Women Experiencing Domestic Violence.” *American Journal of Community Psychology*, 34, 95-109.
- » Burt, R. (1992). “Structural Holes: The Social Structure of Competition.” Cambridge, MA: Harvard University Press.

The readings include landmark pieces in sociology and SNA as well as a broad introduction to applying SNA ranging from terrorism to domestic violence. To ensure that the students read, understand and learn from the readings, they will engage in a weekly discussion of them. The students will post an initial response to the readings in Blackboard and then respond to a minimum of two other students. I will participate in the discussions to stimulate thought and participation.

Although the course is intended to be a broad introduction to the theory and method of SNA, I want students to be able to focus their interest in SNA. As such, students are asked to write a graduate-level research paper on a topic of their choosing. They have to draft a proposal for my review to ensure that they are focusing and applying SNA correctly. They then write a graduate paper that is their opportunity to delve deeper into how SNA is used in their field of interest.

A core part of the curriculum is to look at how SNA functions as a methodology. As such, the course contains five practicum exercises where, using UCI Net (a standard academic SNA tool), the

students are required to enter data, analyze the data, visualize the network and craft a report on the results of the analysis and visualization. Students are to then post their practicum results and analysis inside a discussion forum on Blackboard where other students will then read and respond to two other students' work as a way of interacting with the research portion of the class.

As one of the primary goals is to teach SNA as a methodology (as opposed to only a set of theories), I used a significant portion of the grant to set up an SNA lab in the Wilder School. These practicum exercises involve the learning of the standard SNA computer program — UCI Net. This program is used by most academics doing work in SNA (although this is currently changing as new products enter the market). While students can purchase UCI Net (\$40) for the course, I felt that an SNA lab would be an excellent addition to an online methodology course. An online methodology course is

particularly challenging in that the face time with the instructor is limited. The lab provides students with a source of support both as a way to alleviate some of the costs and to be able to access my help. Students can come in during designated hours to use the lab and to consult with me on their work. Currently, the lab is located inside my office in the Wilder School, meaning access to it will be limited to my time availability. However, over the next year, I hope to move it to a more public lab facility, possibly the GIS lab located down the hall from my office.

The total cost for the teaching assistant was \$1,052.50. The total cost to set up the SNA lab was \$1,966.64 for a new computer. I purchased a new laptop for myself and transferred my desktop to the SNA lab. This exchange will help me work with the Public Safety Institute (PSI) more effectively and take my SNA work out to the community where I hope to use this course to develop a research agenda.

Creating a graduate-level online course opens doors to development, future projects

How will students be affected by the project?

The course will run every summer beginning in 2007 with a cap of approximately 25 to 30 students. Since joining the L. Douglas Wilder School for Government and Public Affairs, I have had many inquiries as to the contents, structure and availability of the course. I also have been asked to develop an undergraduate version of the course and hope to have that in development during the 2007-08 academic year.

How has the project helped you develop as a faculty member?

This project has helped me tremendously as a new faculty member. As I enter my second year (2006-07), I am looking to solidify a research agenda. This course development along with my work with the Public Safety Institute and the community are helping me develop my agenda around social network analysis. I have written a small grant to help fund a community project that uses SNA to map collaborations among local nonprofits. I am working with another faculty member to conduct a pilot study that applies SNA to nonprofits. Finally, the Survey and Evaluation Research Laboratory has contacted with me to discuss the application of SNA to its AIDS research.

How does the project fit into a larger development plan for yourself or your department?

This SNA course will hopefully grow to become a centerpiece inside the Virginia Commonwealth University community for both sociology and the Wilder School. I will move this year to make the course official and to work with the other programs in the Wilder School in looking at how the course can best be listed. Personally, as I move toward tenure, I hope to make the course and SNA my unique contribution to VCU and the Wilder School.

Will there be any papers or articles published as a result of the work on the grant?

While there are no papers coming out as a direct result of the grant, the process of putting together the course brought me two opportunities for research and publication. First, I am currently working with a local nonprofit on a Sociological Initiatives Foundation grant that would fund an initial look at how SNA can be used to measure collaboration among nonprofit organizations. A central requirement in the funding process for nonprofits is the illustration of collaboration with other organizations. SNA can potentially provide a tool that would demonstrate this collaboration. Another variation of measuring collaboration is a pilot study I am doing with another Wilder School faculty member. In a past graduate course she collected collaboration data via phone surveys on local nonprofits. I am going to use this data to run a pilot SNA to produce a demonstration project for other grants. I hope to publish out of both of these projects.

Do you plan to extend the grant by applying for more funding from other sources?

I hope to look for more funding for two extension projects. First, I hope to look for internal funding from the Wilder School or the College of Humanities and Sciences to get the graduate course off the ground for the spring 2007 semester. This does not seem too probable given the short time line. However, I intend on seeking funding to develop an undergraduate version of the course. I hope to find funding in the fall of 2007 for course development in the spring of 2008.

Developing a Web site

I hired a graduate student to help me organize and construct a Web site. Working via e-mail mostly, we organized a user-friendly Web course that runs on an eight-week schedule. See www.has.vcu.edu/soc/sna for the product of our work. (Note: We are migrating the course to www.sna.vcu.edu. The migration will be complete by the end of this semester.)

The total grant cost for the technology assistance was \$320 with contributions from the sociology department. I initially hired a community college student who was working on a course project to develop a Web site. This did not work out because of our conflicting schedules, communication problems and availability to meet. I paid her the \$320 out of the grant. I then turned to a full-time graduate student who was hired to work for any faculty in the department who needed support. She was already being paid through the department and needed more work. She completed the Web site at no direct costs to the grant.

Developing collaboration opportunities

The third objective (collaborative internships) is an ongoing goal. I used my participation in PSI to announce the course and the opportunity for external collaboration. While I believe that PSI will be a rich source of contacts to develop these internships, I also have received inquiries from other sources expressing interest in the course as well as research opportunities for students and myself. Faculty from the Survey and Evaluation Research Laboratory, VCU Medical Center, and the programs in public administration, and homeland security and emergency preparedness have all expressed interest in having their students in this SNA course and working directly with me to either develop other courses (undergraduate version) or conducting SNA research on some of their data. The grant played a significant role in developing these contacts and getting the word out that I was organizing an SNA course. I believe that this collaborative internship piece will become a vibrant piece as the course grows and develops.

There were no direct costs for this objective. However, the addition of the lab and the exchange of a laptop for a desktop will help facilitate this goal. I can now easily go to community agencies and deliver the SNA presentation to them. For example, out of the spring 2006 PSI and the announcement of the SNA course under development, I was asked to meet with two fire inspectors to see if SNA could help solve arson crimes. I needed a laptop to meet with them. The creation of the SNA lab and the addition of a laptop will allow me to better meet the needs of developing an SNA course/research agenda.

In conclusion, I want to express my gratitude to the Center for Teaching Excellence for providing me with this opportunity to develop my teaching and research agenda. Through this grant, I was able to focus my research agenda and bring it in line with my teaching interests. I feel that this grant proved to be a significant contribution to my first year here at VCU and has set me on the right path toward tenure.

CTE mission statement

The mission of Virginia Commonwealth University's Center for Teaching Excellence is to continually promote, enhance and assess teaching effectiveness and student learning through faculty development.

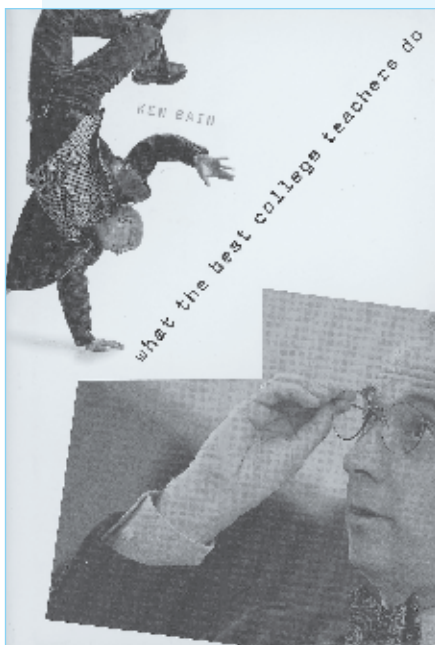
The CTE endeavors to realize this mission through the following:

- » promote a community of teacher-scholars where the theory and practice of teaching and learning are valued, shared and sustained
- » promote collegiality through mentoring and sharing expertise among the faculty that spans all of the university's schools and colleges
- » support a university climate conducive to open, regular and collegial discussion about teaching and learning
- » to provide leadership in the discussion of what it means to work, teach and learn in a learning-centered institution, with attention to the varied perspectives of administration, faculty and students
- » to provide leadership in the discussion, development and implementation of teaching and learning in an online environment with attention to the varied perspectives of administration, faculty and students
- » provide resources and consultation that foster the professional growth of faculty as teachers (particularly in ways that impact student learning)
- » encourage strategies that engage students in active learning such as collaborative activities, group and cooperative learning, undergraduate research and problem-based instruction
- » provide both support and guidance for instructors and academic units to develop, implement and assess instructional approaches, methods and delivery
- » foster innovation and creativity in higher education
- » promote teaching as an important function of a public metropolitan research university
- » promote the appropriate integration of instructional technology into the classroom to support effective teaching and enhance student learning
- » encourage faculty, staff and teaching assistants to participate in conversations about teaching, learning and professional development within departments, disciplines and professional conferences

Bain details the best practices of the best college teachers

By Susan Polich

What do the best college teachers do? They understand about teaching and learning, according to Ken Bain, author of "What the Best College Teachers Do" (Harvard University Press, 2004). Bain believes the best college teachers understand how their students learn, think deeply about student learning, create meaningful classes and assignments, evaluate what they and students do and apply that evaluation to future classes.



Bain's best teachers have four specific thoughts on learning.

1. Knowledge is constructed, not received. Bain's best teachers do not believe that students must "learn the material before they think about it." The best teachers believe, as cognitive scientists do, that learners construct knowledge as they receive it; our brains are both a "storage and processing" unit. Knowledge consists of facts and processes that link those facts. As students receive new material, they compare it to what they already know, integrating or deleting information as it enters the brain through the senses. New information has a better chance of being understood and integrated if the brain already has something to link it to. Information presented without that link is most often deleted.

The take-home message: Memorization without application equals forgetting. Learners must use their own mental process and create their own understanding through active engagement with the material.

2. Mental models change slowly. Bain's best teachers believe that "deep" learning takes time. Students can learn "superficially," or just enough to memorize for the test, very quickly. Changing their mental model takes time. The best teachers help students change their mental model by constructing classroom activities that challenge students just enough to make them think about their current mental model. They also provide students with a safe, comfortable classroom environment so that the students are able to grapple emotionally with the challenge. They give them plenty of opportunities to practice their new mental model, giving them constructive feedback along the way.

The take-home message: Learning for understanding takes time, the proper classroom environment and activities that help students construct their own understanding of the information.

3. Questions are crucial. Questions help students construct knowledge by helping them understand the holes in their thinking. Questions help students think actively, especially questions that force students to do more than just recall facts.

The take-home message: Question for understanding. Ask questions that force students to apply the material to the discipline, or even everyday life.

4. Caring is crucial. Students will learn material that they care about. They will learn material that helps them solve problems in their discipline or daily lives. If the material isn't relevant to them, it has little chance of being learned.

The take-home message: Motivation isn't necessarily entertaining students; it is crafting classroom activities and assignments that force students to problem solve.

According to Bain, the best college teachers create what he calls "a natural critical learning environment in which they embed the skills and information they wish to teach in assignments that the students will find fascinating." They create an environment in which students feel challenged and safe, get plenty of practice and feedback and are able to relate what they know to what is being learned.

Next issue: How the best teachers prepare to teach.

Susan Polich is an instructional consultant at the VCU Center for Teaching Excellence.

National teaching and learning conferences

The International Society for the Scholarship of Teaching and Learning

Nov. 9-12, 2006

Washington, D.C.

www.issotl.indiana.edu/ISSOTL

The 26th Annual Lilly Conference on College Teaching

Nov. 16-19, 2006

Miami University, Oxford, Ohio

www.units.muohio.edu/lillycon

2007 Lilly South Conference on College and University Teaching

Feb. 16-18, 2007

Greensboro, N.C.

www.uncg.edu/tlc/lillysouth

2007 AERA (American Educational Research Association) Annual Meeting and Exhibition

April 9-13, 2007

Chicago

www.aera.net/annualmeeting/?id=282

CTE fall workshops

- Nov. 1 LessonBuilder: Create Interactive Course Content
- Nov. 3 Instructional Uses of Podcasting
- Nov. 7 Blackboard: Assessment and Gradebook
- Nov. 9 Creating Online Assessments for Blackboard
Using Respondus
- Nov. 13 Assessment in Problem-Based Learning
- Nov. 16 Photoshop for the Creation of Instructional Images
- Nov. 17 Exploring Learning-Centered Teaching
- Nov. 29 Blackboard: Assessment and Gradebook
- Dec. 1 Creating Online Assessments for Blackboard
Using Respondus
- Dec. 6 Teaching with Blackboard: An Introduction
to Course Design
- Dec. 8 Blackboard: Introduction to the Content
Management System

For more information on these workshops or to register, visit www.pubinfo.vcu.edu/training/it/search.asp and select Center for Teaching Excellence as the sponsor.

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