



Teaching

Fall 2009 / Vol. 10

A Publication from VCU's Center for Teaching Excellence

www.vcu.edu/cte

Change, opportunity and innovation...



By Joe Marolla, Ph.D.

At the beginning of each academic year there is always the blend of familiar routines and the excitement of newness and the unknown. We continue to live in a time of unprecedented change in the world, our country and our local university community. As a community, VCU is not alone in facing key challenges of our time, but our university is

unique in the kinds of opportunities that lie before us. Despite being asked to do more with less, I routinely witness a committed faculty that not only perseveres to balance teaching, research and service, but also remains intensely dedicated to supporting the welfare and development of our students. This represents a core value of VCU. As we look forward to this academic year and beyond, we have exciting opportunities to build interdisciplinary collaborations, envision innovative approaches to learning and strengthen our community.



Despite being asked to do more with less, I routinely witness a committed faculty that not only perseveres to balance teaching, research and service, but also remains intensely dedicated to supporting the welfare and development of our students.

At the core of the CTE's mission is a commitment to community building across schools and departments through a range of programs and faculty development opportunities. Our Junior Faculty Mentorship Program brings junior and veteran faculty together from across the institution over the course of an academic year. In many cases these mentoring relationships last much longer than the program itself and often lead to collaborations around both research and teaching. Our Faculty Learning Communities (FLC) Program also endeavors to bring faculty from many different disciplines together to work in teams to explore new topics and examine persistent issues that shape our work in higher education. The CTE is currently supporting seven FLCs that involve interdisciplinary and department level groups, one of which involves collaboration between VCU and Norfolk State University. We have seen these kinds of programs produce communities of practice that see teaching and learning as a reflective, evidenced-based activity that is worthy of its own scholarship. Ultimately, I believe that the process of education can be enhanced as we work together to understand our instructional practices in ways that resemble inquiry and knowledge building in our own disciplines. Interdisciplinary collaboration and community building can fuel growth, and I encourage you to seek out and create these kinds of opportunities in your own work.

In addition to building collaboration and community, the university has amazing opportunities to envision innovative approaches for learning. I have seen my fair share of changes after thirty-five years at VCU, but the past several years have been filled with more change than many of us can comprehend. With access to the vast storehouse of human knowledge at our fingertips, enhanced capabilities to communicate, and multiple open publishing formats, the web is changing how and where learning is taking place. While access to the Internet can be both a blessing and a curse, there is no denying that it is causing many to rethink long held notions of what education looks like. With resources like the MIT OpenCourseWare Project, Yale Open Courses and Carnegie Mellon's Open Learning Initiative, universities across the country are providing open access to high quality educational content. With these and other examples we are witnessing colleges and universities begin to explore new opportunities for communication, sharing knowledge and participation brought about by the openness of the web. While institutions of higher education are in the early stages of understanding how emerging learning environments can be integrated into more traditional university settings, it is becoming more clear that we all need to examine how the innovations of our new digital age will impact the VCU of the future.

These are indeed exciting times that are full of change, and VCU remains a vibrant and rewarding place to learn and grow. It is my hope that as you seek opportunities to enhance your teaching and scholarship at VCU that you look toward the CTE as a committed partner to support your ideas, needs and innovations. It is in that spirit that I wish all of you a very successful year of teaching and learning.

Inside this issue

Faculty Learning Communities	2
How the Best College Teachers Conduct Class	3
Small Grants Program	4
Craig Larson	4
Laura Middlebrooks	4
Bonnie Davis	5
Lon Mitchell	6
Melanie Richards	6
Xueming Chen	8
M. Ferrell Justice	8
CTE's Digital Storytelling Program	9
Book Review: Why Don't Students Like School	10
Book Review: Lost in the Meritocracy	11

FLCs support VCU's drive toward learning-centeredness

A faculty learning community (FLC) is a cross-disciplinary group of six to ten faculty members who engage in an active, collaborative, yearlong program that consists of both individual and group teaching and learning projects. Participants immerse themselves in exploratory research as “expert” learners attempting to address various teaching and learning issues.

The VCU Center for Teaching Excellence started an FLC program in the spring of 2005 in an effort to address two overarching issues. One issue was to reduce individual faculty isolation by building collaborations around common interests. Second was to address Theme II of the VCU 2020 Vision for Excellence strategic plan to become “nationally recognized as a learning-centered research university.” The CTE envisioned FLCs as an opportunity to move VCU in the direction of learning-centeredness.

Since that inception in the spring of 2005, the CTE has offered a number of FLCs on a variety of teaching and learning issues. The CTE will continue to offer a core group of FLCs, each described below:

Engaging Online Learners

The core focus of this FLC is the exploration of instructional practices that enhance student learning in an online environment. Faculty at VCU have years of successful face-to-face classroom teaching experience and are now examining ways to move this positive experience online. Key outcomes for participants is on defining high quality online instruction, identifying current online teaching practices locally and nationally (with strengths and weaknesses), determining appropriate use of online methodologies by disciplines, examining appropriate online institutional policies, developing methods for assessing the effectiveness of online processes on learning outcomes, and then applying these to their own online class

How People Learn

The core focus of this FLC is the exploration of the theories and science behind how people learn. Recent research efforts in cognitive science, educational psychology, and neuroscience have made significant contributions to our understanding of how people learn. These research efforts have revolutionized some of the earlier theories on how people learn and have necessitated a change in classroom practice. Participants in this FLC are exploring their own beliefs about teaching and learning, discussing significant aspects of the research on learning and its implications for teaching, and revising some of their classroom activities based on the research.

Junior Faculty Development

The core focus of this FLC is identification and exploration of key issues that play a central role in the successful development of early career faculty here at VCU. We believe that this FLC can serve to promote a variety of personal, departmental and institutional benefits. The sharing and developing of information, success stories, resources, and even challenges would allow participants to identify common experiences, coping strategies, solutions and best practices that could serve as a knowledge base for the larger university community.

Using Technology to Enhance Teaching and Learning: Exploring Smartphones

The core focus of this FLC is the exploration of instructional practices that take advantage of technology to enhance learning. The topical focus of this FLC is be the exploration of the educational use of smartphones. The convergence of mobile devices, computing power and ubiquitous Internet access has resulted in

unprecedented learning opportunities that are just beginning to be explored. This community is offering members the opportunity to investigate, discuss, implement, and assess the use of smart phone technology to enhance learning both inside and outside of the classroom.

In an effort to expand the FLC program and support faculty who wish to explore new or persistent topics, the CTE for the first time requested proposals from faculty groups who wish to explore the FLC model. Here is a listing and description of the FLC proposals supported under this new CTE effort:

Integrating Digital Technology into Teaching and Learning

Participants in this FLC come from the Department of Educational Leadership, School of Education. Participants hope to be more aware of the ways in which the broad range of digital technology potentially impacts the instructional environment. Although participants in this FLC have an interest in investigating the cutting edge of digital technology, they are just as interested in exploring the role technology can play in their own teaching practice and the teaching practice of their graduate students.

Addressing Issues of Diversity and Oppression in the Classroom

Faculty and staff members at both VCU and Norfolk State University proposed this joint FLC because higher education institutions in Virginia are facing similar challenges related to meeting the needs of an ever-increasingly diverse student population while recruiting and retaining diverse faculty, staff, and administrators. This inter-campus FLC hopes to lead to enriched curricular and co-curricular changes on both campuses, enabling serious study of diversity and oppression by both faculty members and students, effective delivery of materials and informed facilitation of dialogues related to diversity.

Black Education Association (BEA) - Faculty Learning Community

The overall goal of this FLC is to engage in a conversation as to how to enhance the learning experience of Black students at Virginia Commonwealth University. Participants in this FLC hope to assess and develop an understanding of effective teaching techniques and strategies for all VCU students, but especially students of color. They also hope to discover how learning style and culture affects learning, teaching, and research endeavors and create support structures that may not already exist for students of color.

Defining 21st Century Literacy

Participants in this FLC came together last year as an FLC and will continue their work this year. The focus of the FLC is to define 21st Century Information Literacy and brainstorm best practices to promote this form of literacy in the undergraduate and graduate pedagogy. Participants hope to focus their learning on the new information literacy by conducting a survey examining the perceptions and attitudes of students and faculty around 21st Century literacy. Following an analysis of the results, the participants hope to explore ways to apply the findings.

Overall, the FLC program is emerging into an effective method for supporting and developing VCU faculty members. Feedback from former and current participants indicates that the experience is extremely valuable and rewarding. Participants express a rather profound revitalization in their teaching and in their work as VCU faculty members. They also indicate that they value the opportunity to meet and collaborate with their colleagues from other departments and disciplines, as well as the opportunity to learn more about teaching and learning. You can find out more about the FLC program online at www.vcu.edu/cte/programs/faculty_learning_communities.

Bain explains how the best college teachers conduct class



By Kristy L. Byrd

In an ongoing look at what Ken Bain found out about successful college level teaching while researching his book *What the Best College Teachers Do*, here is a focused look at chapter five of that book. In this chapter, Bain asks the question, “How do they conduct class?” The answer is not driven by focus on particular methodologies, but rather by classroom goals regarding engagement and learning. Thus, the “performance” of the faculty member takes a backseat in the classrooms of those faculty members that were a part of Bain’s study. He explains:

“Great teachers are not simply great speakers or discussion leaders; they are, more fundamentally, special kinds of scholars and thinkers, leading intellectual lives that focus on learning, both theirs and their students’. Their attention to the details of performance stems from a concern for the learners, and their focus is on the nature and processes of learning rather than on the performance of the instructor.” p. 134

In considering how effective teachers conduct their classes, Bain provides a list of goals for us to consider. He details several characteristics essential to establishing what he calls “natural critical learning environments,” but he believes that the most important of these is a teacher’s ability to provoke meaningful questions in and out of the classroom. He also explains that while some teachers seem to have innate abilities in this area, the skills can be learned behaviors, as well. So, while knowing what questions to ask in the classroom and how to provide meaningful explanations comes naturally to some, it’s something we can all learn to do with direction and practice.

While their methods vary greatly, some elements are constant. The best teachers often try to create a “natural critical learning environment” where students learn by confronting important problems using critical thinking to challenge pre-existing ideas and assumptions. This establishes an environment that is both challenging and supportive because both conditions are required for optimal learning.

While avoiding focusing on particular teaching methodologies as successful or not, Bain discusses commonalities among various methods the best professors use to present lectures, teach cases, facilitate discussions, and more. Here he argues that any discussion of classroom techniques needs to occur within the context of some common principles. That is to say that lecture, or any other teaching method, is neither inherently good nor bad. It’s just one of many teaching tools that can be used effectively or not. Here are the seven principles Bain suggests are part of what all effective college teachers do:

1. Create a natural critical learning environment.

Bain argues that many teaching activities, even lecture, can accomplish this if designed appropriately. Of course, collaborative work, discussion, and writing are among other methods that can be used to create this natural critical learning environment. While the activity does not matter, the thinking that occurs is crucial. Some questions within a discipline naturally arouse interest and even intellectual curiosity, and these can be examined by students critically. Teaching problem solving processes and presenting challenging questions can facilitate the creation of this desired environment in the classroom.

2. Get their attention, and keep it.

This is accomplished primarily through provocative acts and questions, but the focus must remain on student learning, not faculty performance. So, while some faculty might utilize techniques that are entertaining to keep students’ attention, they must be anchored in content and learning goals.

3. Start with students rather than the discipline.

Rather than an outline of the topic, begin with something students care about, know, or think they know. This can challenge students to reconsider what they think they know and engage them in critical thinking processes. Further, it can help them feel connected and invested in the disciplinary material you want them to learn.

4. Seek commitments.

Lay out your plans and make a commitment regarding what you will do as a teacher. Encourage students to make a commitment to being part of an engaged group of learners for the duration of the course. Guide them to decide if they want to pursue the learning in your class and to realize that they have commitments to each other in that circumstance. Commitments must be an early focus in the classroom, but it is also necessary to remind students of the commitments they made later in the semester. This is particularly true in collaborative environments when a single student failing to follow through impacts other learners negatively.

5. Help students learn outside of class.

Helping students engage in self-directed investigation will allow them to seek more disciplinary knowledge on their own and contribute to lifelong learning techniques. Ultimately, faculty would like for students to seek out information on their own, but don’t often provide encouragement or support to foster that goal. In order for students to learn on their own outside the classroom, faculty have to foster this activity inside the classroom by stimulating interest, offering direction, and providing encouragement.

6. Engage students in disciplinary thinking.

Assist students in approaching questions in the same way scholars and professionals in that specific discipline do. This helps them to critically analyze the arguments and theories they explore whether they come from the teacher, the readings, or fellow students in the field. Furthermore, it helps students understand that different discipline approach questions and arguments in different ways and, in turn, helps expand their own thinking and learning.

7. Create diverse learning experiences.

A variety of strategies and techniques allows for, as Bain describes it, both “the systematic and the messy.” That is to say, it’s acceptable, and even desirable, for thinking to get cloudy and discussions to run off course as long as authentic learning takes place. Teaching methods should allow for students to work on their own, interact with one another, and hear from disciplinary experts. Different student learning styles is another reason to utilize a wide variety of teaching methodologies, and students with all learning styles will benefit from many engaging techniques.

Ultimately, Bain’s study reveals that the craft of teaching involves putting these principles to work in a classroom with an emphasis on interaction: interaction with ideas, with each other, and with faculty. Since teaching is an interaction, not a performance, much can be gained by being flexible and using all types of feedback from students to adjust to the needs of the learning environment. This includes being comfortable with a degree of silence in the classroom from time to time and making effective use of it when it occurs naturally. As Bain describes, the best college teachers “can make silence loud” by pausing at key moments in a lecture or discussion and by giving students time to develop answers to challenging questions.

Bain says that ultimately all teaching techniques must have one thing at their core to be successful, and that is a strong intention for students to learn. In the end, good teaching is more than presenting a good lecture or leading an engaging discussion; good teaching is more like a conversation than a performance.

- Kristy L. Byrd is a Focused Inquiry faculty member at the VCU University College.

CTE grants stimulate innovation in teaching and learning

The Center for Teaching Excellence annually requests proposals from Virginia Commonwealth University faculty members 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.

Each recipient of a small grant is responsible for writing a case report which is used to help evaluate the effectiveness of Small Grants Program. Following are the case reports from the 2008 funded projects.

New Approaches to Teaching Linear Algebra

Craig Larson
Department of Mathematics and Applied Mathematics
College of Humanities and Sciences

Problem Statement

Linear Algebra (Math 310) is a course which is required of all Mathematics and Engineering majors at VCU. The course is partly computational and partly an abstract investigation of properties of vector spaces. For the engineering students in particular this part of the course is a great change from the largely algorithmic mathematics that they met in their earlier courses. Many of the objects that the engineers encounter in their mathematical practice, polynomials, matrices, functions, n-tuples, etc., fall under the unifying framework of a vector space—and anything that is true about a vector space in general is true about these objects.

Aims

The instructor has taught in the traditional lecture format throughout his career. One of the aims of this proposal was to learn alternative classroom approaches. The instructor attended two regional meetings and one national meeting as a member of Project NeXT (New Experiences in Teaching) and met, engaged and networked with a large number of successful teachers and learned many ideas for improving student learning and success.

The primary aim of the proposal was to develop new course materials for teaching Linear Algebra. A series of worksheets was developed for daily classroom assignments. In the traditional lecture students passively listen and take notes. They often leave believing that they understand the material but, when they subsequently attempt the homework problems, they discover that their “understanding” has vanished. In mathematics, the test of understanding is the ability to work problems. In the traditional lecture classroom style students are not asked to test their understanding of the material that is being presented.

New Course Materials

A more recent trend is for active learning classroom styles. On this model, students in some way engage with the material that is being presented. In the presented implementation, students are engaged with worksheets: a prototype example of a central concept or problem type is presented, and then the students are asked to work a similar problem on their worksheet.

The worksheets are not quizzes. There is no pressure. Students are allowed and encouraged to talk to each other. The instructor walks around the classroom both to gauge how successfully the students are doing and how well they understand the presented concepts,

but also to help. This is one more teaching opportunity for the instructor.

The worksheets are collected and recorded as part of an in-class assignment component of their semester grade. Everyone who was in class and worked on the worksheet receives full credit. The worksheet problems are chosen both to reinforce the lecture but also to preview the homework. Furthermore test questions are chosen that reflect both of these. Students have ample opportunity to master the new concepts and they know exactly what is expected of them.

Results

The Fall 2009 semester is the first semester that this approach is being tested. In the first place, the students seem to enjoy taking a break from the lecture to work on the worksheets. In the past, students could tune out when they encountered vector spaces or any other seemingly difficult abstractions. In the described approach, they can no longer do this. By filling out worksheets they are required to engage. Vector spaces have already been introduced—there were five worksheets on this topic alone. The students’ understanding seems much deeper than in past semesters. There is a trade-off: some teaching time is lost. In this case the pros easily outweigh the cons. The first semester grades are forthcoming as is grade comparison data with past semesters. End-of-semester exit surveys of student opinion of the worksheets are also forthcoming.



“Who Is Professor GRE3N? Affordable Housing and Sustainable Building”

Laura Middlebrooks
Spanish Program
School of World Studies
College of Humanities and Sciences

Project overview

The mortgage crisis and the unethical lending practices that contributed to it have highlighted the serious lack of affordable housing in the United States. The subsequent economic fallout has set the stage for a redefining of the “ideal” home. This project explores sustainable residential building practices, including environmentally safe materials and an ecologically responsible scale of building. The CTE Small Grants program has funded “the analysis and prototype production of an energy-efficient component” of a green house to be built by VCU students as part of the School of Engineering Senior Design Studio.

Given that the Senior Design Studio runs August to May and the CTE Small Grants funds are released in January, the \$2000 awarded for this proposal is being utilized in the fall of 2009 and spring of 2010. The eight-month delay allows the funds to support the year-long efforts of fourth-year students Gary Artybridge, Josh Greenberg, Kris Kidd and Brandon Tomlin in designing a “Low Cost Sustainable Model Home.” Their advisor is Dr. Ramana Pidaparti, and in their proposal these students summarize their project in the following way:

[W]e seek to design and produce a low-cost, sustainable shelter from unprocessed recycled materials. Use of these raw recyclables will add elements of structural support and thermal insulation, allowing the builder to spend less money on traditional building supplies made of more valuable resources. We will also implement energy efficient innovations as well as renewable energy generation designs. We wish to pursue this project because it will provide cheap, sustainable housing with a smaller impact on the environment than typical

building projects

We propose to design and build a shelter that is structurally sound using a large percent of recycled and waste materials. We will also be adding sustainability by aiming for high energy efficiency and possibly using solar or wind energy collectors to meet the power needs of the inhabitants. There are currently a handful of specific uses of recyclables to test and analyze. Among these ideas is the creation of a sandwich board out of sheets of plywood and the ends of aluminum cans. The strong, rigid ends of the can could be layered between the plywood sheets and could serve as a floor or wall panel. We will also investigate using the middle parts of the aluminum cans to create siding and/or roofing for the structure.

In achieving these goals, we will have to do a lot of engineering analysis. We must evaluate the structural soundness of each innovation. All of our designs have to be safe enough to bear the expected loads with a reasonable factor of safety. Also, we want to consider the thermal properties of our materials, so heat transfer calculations must be done. Finite element analysis software will be used to do both the structural and thermal simulations

As part of the multi-disciplinary effort of this project, the website <http://www.whoisprofessorgreen.vcu.edu/> has been approved and is currently under construction. It will serve as a bilingual blog for related events, including collaboration with VCU's Green Unity group. Spanish 300 students will be invited to participate in and write about events that will be interpreted into Spanish. A Spanish-English Translation and Interpretation Program student, Andrew Pocta, will be translating the webpage from English to Spanish as well as interpreting upcoming events. Given that "Who is Professor GRE3N?" will be completed in the current academic year, an additional report will be submitted at this time in 2010.



CoEd411.com

*Bonnie Davis
School of Mass Communications
College of Humanities and Sciences*

In the past year alone, more than 46,900 print and broadcast reporters, as well as other key newsroom personnel, have experienced layoffs throughout the country. Many have blamed technology --- the Internet, more specifically --- for the decline in subscribers and viewers of traditional print and broadcast media outlets. Others point to the tunnel-vision, or lack of vision, displayed by media managers during the halcyon years when profits were double digits and budgets appeared to be endless.

News organizations' failure to plan for emerging technology and new media platforms remain constant themes today as journalists struggle to regroup and regain some standing in an industry they cherish. For aspiring journalists about to enter a world filled with unknowns, it is imperative that they be prepared to "hit the ground running" when they leave college and enter the work world. No longer can journalism school graduates rely on the local paper or television station for employment. Today's media environment requires students to be knowledgeable about multimedia platforms and digital technology. They must be focused, savvy and able to write, edit, shoot video and create compelling visuals often at a moment's notice. Some may work for real or virtual newsrooms. Some will be freelancers, and others, entrepreneurs, having created their own media outlets.

Faculties in VCU's School of Mass Communications have embraced these changes to the extent of implementing a Multimedia Journalism Master's Program in the summer of 2008. Our undergraduate curriculum also has been revised to implement online reporting and

other emerging media technologies. These new programs will enable our students to be more competitive in the journalism job market by their ability to simultaneously deliver news for print, broadcast and online.

Aware of the challenges facing the media industry, I last year (Fall 2008) applied for and received a \$4,500 grant from Virginia Commonwealth University's Center for Teaching Excellence to create an online publication, CoED411. The publication was to be filled with student-generated content. The publication or Web site was created and developed as part of my MASC 303 news writing course that incorporates online reporting. The course and publication's objectives are to provide journalism students first-hand experience in creating, launching, operating and disseminating news online.

Fast forward to Fall 2009

CoEd411VA.com, will launch in November 2009, although it actually can go live any day. While the site's original intent was to be a weekly, Web-based publication focusing on news, information and entertainment centered around colleges in Richmond, Va., Charlottesville, Va., Northern Virginia and Washington, D.C., the publication thus far primarily focuses on news and events on VCU's campus and the Richmond community. Once it is live, it can be and will be updated daily. Initial plans to have a broad range of titles (publisher, editor, managing editor, reporters, columnists, multimedia producers, sales and advertising managers) were scaled back due to several realities. For example, rather than having a class of 12-15 students in my MASC 303 class, I only had five students in the Spring 2009 semester. A smaller class meant that there needed to be a stronger focus on sharpening students' basic newsgathering, reporting and writing skills because none of the students, mostly broadcast majors, had written for a newspaper.

However, in the end, working with a smaller group proved to be a blessing. I believe that the groups formed a bond and camaraderie that may not have been possible with a larger class. I also believe that they enjoyed the status of being the first content-providers for CoEd411. Also, the project's unique caveat---paying students for their work---proved to be a positive factor for most of the students involved.

VCU's spring semesters always tend to move quickly, with one reason being that students have a week off in March for spring break. Thus, I did not have a lot of time to focus on building the Web site until the latter part of the semester. Again, the first part of the semester was spent helping students improve their interviewing, reporting and writing skills, learning correct newspaper style, polishing their photography skills, learning about multimedia such as blogs, soundslides and video. I then had to identify someone to design the site. A former student suggested that I contact Mark Harris, a graduate of VCU's School of the Arts. Mark proved to be a good choice. He visited our class, talked about his work as a web designer for several businesses, listened to our students comments, and sought their ideas for the site. A few weeks after Mark's visit, he presented a draft of the site. We were pleased.

By then, we had plenty of content to put online. From the start, students were provided a range of topics to write about. Such topics included coping with college, goal-setting and meeting objectives, financial and scholarship information, study abroad programs, dating and sexuality, entrepreneurship, addictive behavior and career goals and job opportunities. They also had the option of writing about healthcare, relationships, family, sports and entertainment, or more hard-nosed reporting such as immigration, housing, energy and foreign affairs.

Their final topics fit and went beyond many of those categories.

Current articles on the site include a special section on Richmond's Canal Walk, and other subjects focus on topics such as Going Green, Sleep Deprivation, Diversity, The Dangers of Using Expired Cosmetics, Pinching Pennies and the annual Monument 10K Race. I owe special thanks to Marggie Graves, a former colleague from The Richmond Times-Dispatch, who assisted in editing the articles. She did a fine job. I also want to thank editors, reporters and staff at The Virginian-Pilot and VirginianPilotonline.com in Norfolk, Va., who extended to me a one-week externship last summer to observe and work for its online news operations. (http://docs.google.com/View?id=dcmtzjg_56dcrnghgf) That experience proved invaluable in further enhancing my knowledge and expertise about today's newsrooms.

In addition, I thank the Center for Teaching and Excellence for providing funding to obtain resources and provide stipends to students during this project. Most of all, I thank my students who were not only willing to participate in this venture, but demonstrated remarkable energy, enthusiasm and excitement through it all.

I personally am excited to know that my current group of MASC 303 students is also eager to add their work to the CoED411VA.com. My students are bright and cooperative. I know they will work hard to ensure that the site continues to be a success.

Sources

- <http://graphicdesignr.net/papercuts/>
- http://www.unityjournalists.org/images/UNITY_Layoff_Tracker_2009_Report.pdf



Low-Cost Print-on-Demand Open-Source Textbooks

Lon Mitchell
Department of Mathematics
College of Humanities and Sciences

Project Overview

Textbook prices have continued to rise leading faculty and governing bodies to seek ways of decreasing the financial burden placed on our students. While the internet provides access to many free course materials, using electronic materials in class presents a number of difficulties, both for instructors and students, including vetting, adapting, distributing, and brining these materials to class. Our project seeks to facilitate the use of "free" course materials in mathematics courses at VCU by identifying and publishing high-quality "free" texts so that instructors may adopt them by name and ISBN just like any commercial text, and students have the option of purchasing a low-cost print-on-demand copy from the bookstore and/or using an electronic edition.

Results

In the Fall semester of 2008, I identified Linear Algebra by Jim Hefferon (St. Michael's College), a textbook available online for free download and use under the Gnu Free Documentation License, as a better choice for use in MATH 310 than the \$150 book then in use. Students were asked to use an electronic copy or print their own copy while a printed version was prepared. In the Spring semester of 2009, students were able to purchase a 450-page paperback edition for less than \$14 though Amazon.com. In the Fall of 2009, two sections of MATH 310 used Linear Algebra, and students were able to purchase a paperback edition (ISBN 0982406215) through the VCU bookstore or many online vendors. Fall 2009 also saw the publishing of Abstract Algebra: Theory and Applications by Thomas Judson, which students in MATH 501 could purchase as a hardback (ISBN 0982406223) for under \$20. To date, approximately 150 VCU students have taken a class using one of our textbooks, and almost 200 print copies have been sold.

IRB Guidelines for Classroom-based Evaluation or Research Activities

Lisa Abrams, PhD, Assistant Professor, School of Education and
Monika Markowitz, PhD, Director, Office of Research Compliance
and Education, Vice President's Office for Research

CTE grant recipients who are interested in publishing papers and/or presenting at conferences on the evaluation results of their CTE supported projects are reminded to seek VCU IRB approval for the evaluation/research activities if the project meets the definition of 'human subjects research.' All 'research' that involves 'human subjects' requires VCU IRB approval; this includes research that is conducted within the context of the classroom and may include instructional as well as assessment activities. Faculty can find out more information about what constitutes research with human subjects on the VCU IRB Policies & Guidance webpage. If a project utilizes a systematic approach, but does not develop or contribute to generalizable knowledge, it is not considered 'research' for IRB purposes. Although such projects may be published or presented for informational purposes, they should not be referred to as 'research' projects. If such a project starts as program evaluation or quality improvement, but the focus changes to 'research,' stop the project and submit to the IRB. Please see the following link: <http://www.research.vcu.edu/irb/activities.htm>

Future Directions

Our project has four more texts, including The Book of Proof by Richard Hammack (VCU), currently used in MATH 300 in electronic format, already identified for publication. Thanks to the provisions of the GFDL, each copy sold returns a small amount to the Department of Mathematics & Applied Mathematics, allowing our textbook series to continue to grow, and covering the cost of printer set-up fees and ISBN fees. We hope that other disciplines will be able to use our model to provide instructors and students greater access and ease of use of "free" course materials.



Professional Teaching Internships for Dance Majors

Melanie Richards
Department of Dance and Choreography
School of the Arts

"The dance is peculiarly adapted to the purposes of education. It serves all ends of education. It helps to develop the body, to cultivate the love and appreciation of beauty, to stimulate the imagination and challenge the intellect, to deepen and refine the emotional life and to broaden the social capacities of the individual..."

- Margaret H'Doubler, Mother of Dance in the American University, 1925

Dance in the 21st century is a vast panorama of human movement potential. The study of dance is flourishing and the demand for qualified teachers has expanded with the growing interest in dance. Increasing demand for well trained teachers has expanded the role of university dance departments. Now, more than ever before, the future teachers in the field of dance education are being trained in the university system rather than in private dance studios or professional organizations. Careers in the field of dance education have significantly expanded in range and scope. Universities are in a prime position to impact the depth and quality of dance education at

every level of the profession. Preparing college majors for a meaningful career in dance education requires a comprehensive curriculum with opportunities for teaching internships where the student teacher can be mentored. In most fields of knowledge education courses and certifications are commonly offered and degrees in education cover a wide range of disciplines. However, the inclusion of dance education courses and certifications is a relatively recent phenomenon. The potential for expansion in the area of dance education is significant and the need for more substantial dance education course work is paramount.

Dance is an art form and a physical discipline requiring knowledge of biology, anatomy, kinesiology, nutrition, psychology, and history. There are also the elements of the craft of dance which include time, space and energy, requiring a foundation in philosophy and esthetics. Excellence in dance education must include exposure to all of these areas of learning. University dance departments have been developing comprehensive course work to advance the level of knowledge in all of these areas. University dance majors have a greater range of knowledge and a wider perspective of the field than professional counterparts and therefore have the resources to become leaders in the field of dance education.

Teacher preparation in an art form is complex, especially an art form that is based upon the action of the human body. Sustaining an ideal balance between personal artistry and functional knowledge is difficult and remains a challenge for all educators in the field. The university student must place the primary focus on physical training and knowledge of the craft. The transition personal growth to a broader awareness of the self in relationship to educating others is a profound shift for the dancer. However, in making that transformation the young artist becomes an independent thinker, synthesizing personal training experience, learned knowledge and artistic intuition into a base of personal resources for teaching. Pedagogy courses in dance must cover a broad range of information but central to the learning process is the opportunity to prepare and teach classes in a supportive and mentored environment. An internship program is a fundamental requirement in the training process. Unfortunately teaching internships in dance are limited and infrequently available in the curriculum. It is often necessary to create a special program to provide appropriate opportunities for students who are motivated to become educators.

Grants made available through the Center for Teaching Excellence served as the catalyst for the implementation of a special teaching internship program in the Department of Dance and Choreography at VCU. My intentions for establishing this internship program were to extend the scope and depth of the pedagogy course and provide students with an opportunity to work directly with institutions in the Richmond community. I determined the overall focus for the program and consulted with several directors of dance programs in this region. All of the contacts were positive and very supportive. Following my consultations I continued developing the structure of the internship with the feedback I received. I established the basic guidelines for the student interns and finalized the locations of the first internships. I selected the student interns from my pedagogy course basing my decision on several factors; demonstrated teaching aptitude, maturity, artistry, ability to be a strong role model and solid verbal skills. Three students were selected. The requirements were specified and each student scheduled a discussion session with me before the work began. Each intern was required to propose an ongoing project with a core intention and a stated outcome for learning. The interns were placed in two different institutions based on their preference and their personal schedule. Prior to beginning the teaching practicum the interns were required to submit a written proposal, observe the classes they were scheduled to teach, meet with the directors of the dance programs, write comments about their

observations and take notes on the information they were compiling throughout the process. They were also responsible for presenting detailed lesson plans for each class. I was directly involved in giving them ongoing feedback and supervising their progress. The directors of the participating schools were also involved with the process of mentoring the interns, giving insights into the best strategies for teaching, pointing out key issues to be aware of as they structured their lesson plans and offering helpful tools for success.

The outcome of this initial intern program was extremely successful. The process was well balanced with a good base of preparation and substantial engagement in classroom teaching. Two interns completed their two week practicum at Henrico Center for the Arts and one intern completed a two week practicum at Thomas Dale High School. The final reports from the directors of these programs and from the interns provide clear evidence of the enormous benefits of this program. The interns were evaluated by me and by the director who also mentored them. Written reports were given to each intern. Additionally, the interns submitted a self evaluation.

The following quotes are taken from the documentation:

"The VCU student teachers, CFA [Center for the Arts] students and I gained much knowledge from the wonderful work practiced and produced during the student teaching apprentice program. In addition, thank you for this wonderful opportunity and I hope to continue this type of collaboration between VCU and CFA to foster and grow for many years."

"Amanda' was very focused and prepared. She worked well with the students, presented her ideas with clarity and assurance. She introduced them to new ideas with a patient and supportive demeanor. Her teaching was very successful and I look forward to continuing this internship process with VCU."

"Teaching students for a longer period of time revealed more to me than the singular classes I had taught before. For instance, I was able to develop my material and movement ideas over the course of the week. Instead of revealing everything at once to the students and expecting them to absorb it all, I was able to take time and work progressively and cumulatively. It was so reassuring to see changes over the week because I had never taught a group of students for a period of time in which I would be able to see a change. It was a reaffirmation and a reassurance that I did have some business instructing other people in this form. I was able to develop my voice and style as a teacher."

This teaching experience was an ice breaking situation for me. I enjoy teaching, but before being offered this opportunity, I had never taught a modern class outside of college. This experience has given me confidence that I can prepare a suitable lesson plan, teach movement, answer technical questions to help guide the students, manage a classroom and overall communicate effectively."

"As a novice teacher myself, when I began the residency, I felt I needed to have every angle of my class planned, with options in case something didn't work out. But, as I got to know the students, their abilities, I became less worried about the class, and more concerned with what the students were learning. It's something I will always be aware of now when I teach. Over all, the experience was so eye opening and encouraging to me as an up and coming teacher. Being my first real experience with High School students, I feel more prepared to teach all levels, and I feel that my capabilities and my knowledge is on par with taking on the responsibility of educating still developing minds in dance. I truly did appreciate this experience."



Innovative Pedagogical Approach to Teaching Transportation Modeling Course

Xueming (Jimmy) Chen
Urban and Regional Planning Program
L. Douglas Wilder School of Government and Public Affairs

Background

Many university transportation programs in the U.S. only teach conventional urban transportation modeling system (UTMS), i.e., the so-called four-step modeling process: trip generation, trip distribution, mode split, and trip assignment. However, this conventional teaching method is no longer adequate, because it does not take into account micro-level operational analysis, which represents the wave of future.

Virginia Commonwealth University (VCU) approved the Transportation Planning and Analytics (TP&A) Graduate Certificate Program within the L. Douglas Wilder School of Government and Public Affairs. One of the required Graduate Certificate Program courses is the transportation modeling course. This course was taught in Spring 2008 (URSP 691: Transportation System Modeling) and Fall 2008 (URSP 691: Transportation Analytics and Modeling) in a conventional way, with very low enrollments of no more than 5 students each semester.

To reverse this trend, this instructor decided to teach this course in an innovative way starting in Fall 2009 by incorporating a micro-level operational analysis into the teaching process. The grant proposal was submitted to the Center for Teaching Excellence (CTE) in October 2008. In December 2008, CTE awarded a small grant to support this project.

Objectives

Among others, this project has the following two major objectives:

- Acquire lab educational licenses of two new traffic operations software packages: HCS+T7F and TSIS-CORSIM. HCS+ (Highway Capacity Software Plus) module implements the recently approved procedures in the Highway Capacity Manual (HCM) Chapter 26 for Interchange Ramp Terminals. HCS+ interchange files can be imported into TRANSYT-7F, which is a traffic signal timing software, for generating TSIS-CORSIM (Traffic Software Integrated System - Corridor Simulation) files for one-touch animation. TSIS-CORSIM is a microscopic traffic simulation software package for signal systems, freeway systems, or combined signal and freeway systems; and
- Teach students how to use both software packages and solve real world problems.

Activities

With the CTE grant support, the following activities occurred during Spring and Summer 2009:

- Purchased HCS+T7F and TSIS-CORSIM software packages from McTrans Center, University of Florida;
- Installed both software packages in the instructor's office computer and the computer lab located in Hibbs Hall 0407;
- Received the McTrans Center-sponsored HCS+T7F training held in Boston;
- Developed new course materials, which consist of instructional component (presentations and reading materials) and hands-on workshop component (lab exercises and data sets). Lab exercises include CUBE software, highway capacity analysis (HCS+T7F, TSIS-CORSIM), and others;
- Utilized the Wimba Classroom teaching method in Fall 2009

to accommodate the special demand of 2 online students who registered for this course.

Results

The course announcement sent to prospective students in Spring 2009 already included the contents of CTE-funded highway capacity analysis, microsimulation technology, and operational analysis, besides conventional modeling approaches. As a result, the student enrollments of this modeling course dramatically jumped to 10 in Fall 2009, clearly demonstrating the initial success of this CTE small grant. See Table 1 for details. It is believed that this course will achieve even higher student enrollments in Fall 2010.

Table 1: Student Enrollments of the Transportation Modeling Course

Semester	Course Number	Course Title	Enrollments
Spring 2008	URSP 691	Transportation System Modeling	5
Fall 2008	URSP 691	Transportation Analytics and Modeling	3
Fall 2009	URSP 626	Transportation Analytics and Modeling	10



Personal Digital Assistant (PDA) clinical documentation System: A Pilot Study For Radiation Sciences Program

M. Ferrell Justice
Department of Radiation Sciences
School of Allied Health Professions

Background

Radiation Science education is a mixture of classroom and competency based education. Competencies in all the modalities are mandated by The American Registry of Radiologic Technology (ARRT). The tracking method of the large list of competencies required by the ARRT for each student has been left up to educational faculty. Students and faculty often use a paper based system to record clinical experience and competencies. Technology utilization has exploded in educational and hospital settings. As a result the natural progression towards paperless technology is being addressed by many health education professions, including medicine and nursing (Kho et al, 2006). The use of personal digital assistants (PDAs) in nursing education and medical education have had some common applications that has been investigated (Lu et al, 2004, Rao, 2002, Briscoe et al, 2006, Nierenberg et al, 2007, Garret & Jackson 2006).

Nurses have also used paper based portfolios to track their clinical experiences. Garret and Jackson (2006) discussed several learning outcomes that they evaluated with the use of PDAs in nursing and medical education. These learning outcomes included nursing/medical content knowledge, therapeutic intervention experienced, communication and proficiency, and critical thinking skills (Garret & Jackson, 2006).

Nierenberg and associates at the Dartmouth Medical School reported on clinical statistics such as the total number of student-patient encounters, number of encounters with feedback, average usefulness of the feedback given, and number of patients who declined student involvement with the use of PDAs. Tracking reports were generated by the student and/or the faculty. The purpose of the reports in their study was to allow the students and the educators to review student progression towards learning targets and clinical skills (Nierenberg

CTE's Digital Storytelling Program

Each of us has our own stories. For centuries, stories have served as means of recording events, conveying wisdom and sharing a perspective about the world around us. Through the power of narrative, a story can unfold and tell who we are and relate the significance of events or ideas to listeners in a deeply personal way. Stories can give us a new perspective, and cause us to care about issues and/or challenge us to learn and inspire us to change.

The CTE launched its Digital Storytelling Program in the fall of 2009. The purpose of the program was to provide faculty participants with the opportunity to develop the practices and skills to create digital stories, and to explore how digital storytelling might be employed in their own instructional contexts. Through a series of five hands-on sessions, participants were introduced to processes and tools that support digital storytelling. Particular emphasis was placed on the importance of concise script writing, narration, and the selection of images and sounds as a means to convey story, and the use of storyboarding as a process for structuring the development of digital stories. In addition, participants learned to use freely available software

tools for editing digital video and sound to support the creation of digital stories.

The experience gained in the Digital Storytelling Program is intended to serve as a foundation by which faculty participants can determine how they and their students might be able to use digital storytelling to support learning in educational settings. In addition to creating their own digital story, faculty who completed this program were able to:

- Use the practices and skills of digital storytelling to create new works
- Describe the value of digital storytelling in supporting reflection and learning
- Develop plans for using digital story telling in a variety of instructional contexts
- Provide structural and technical guidance to support student creation of digital stories

The program will run again in Spring 2010. For more information, please visit: <http://go.vcu.edu/cte/dst>

et al, 2007). This study also set seven goals while implementing wireless technology into their clinical education system. The goals of wireless technology implementation were: easy customization for use in all clinical areas, tracking student experiences and competencies, having a system that is student friendly, providing value to educators, creating an easily accessible system to facilitate data entry and report generation, helping students and faculty understand their new competency based model of education, and to potentially help address future research and other applications (Nierenberg et al., 2007).

Garret and Jackson and Nierenberg, et al., all measured the outcomes of their studies with the use of survey questionnaires and generated reports from the PDA systems they used. They mutually found that it was important to measure the PDA users perceptions of their experience with the wireless technology (Garret & Jackson, 2006, Nierenberg et al., 2007). Both studies show that students and faculty found the use of PDAs to enhance their ability to track clinical experiences and outcomes of clinical competencies. The PDA system was also a benefit to the students that were in clinical rotations in remote locations. Students perceived that they felt less isolated from faculty and other students (Garret & Jackson, 2006, Nierenberg et al., 2007).

There were areas of concern in both studies. Users often needed repeat training in the use of the PDAs and its software. Students and clinical faculty felt that learning the new system and software was not fully achievable with increased clinical workloads. There was also difficulty in setting up the students' wireless technology systems with the existing systems in the clinical facilities that they rotated. The final hurdle for both was the cost of implementation (Garret & Jackson, 2006, p. 648, Nierenberg et al., 2007).

Measuring training time, user perceptions of the ease of use, and how the users view the PDA as a learning tool are areas needing continued research. Implementing wireless technology into the clinical education in radiation sciences may allow educators and students to track their educational progression. It may also give insight into the learning environments in which the students gain their clinical education. Instructing students, faculty, and clinical staff the proper use of the PDA system and software may increase its acceptances in the clinical sites.

Aims

The proposed study will attempt to answer the following questions in order to contribute to the knowledge about future usage of PDAs in the clinical education of radiation sciences students:

1. What are mean levels of satisfaction of the PDA system from the faculty, clinical staff, and student perspectives?
2. Is there a difference in the mean levels of satisfaction between faculty, clinical staff, and student perspectives?
3. Is there a difference in the magnitude of usage satisfaction with the PDA system and the paper-based system?
4. What learning outcomes are influenced by the value of the PDA system from the faculty/instructor and student perspectives?

Activities To Date

The following activities have been completed to date:

1. All hardware and software has been purchased for this project.
2. Sample has been established.
3. IRB approval met: IRB number is HM 12234.
4. Pre test has been developed and administered.
5. Orientation manual has been developed and instructions provided to participants.
6. Form conversion has been developed on the PDAs.
7. Data collection has started.

Future Plans

The following activities will be completed by the end of the fall 2009 semester:

1. Data collection completed.
2. Data analysis completed.
3. Final report submitted to CTE.



Development of a Simple Hands-on Course Entitled: Understanding Biological Complexity

Tarynn Witten

Center for the Study of Biological Complexity

Final report not received

Book Review: Why Don't Students Like School: A Cognitive Scientist Answers Questions About How the Mind Works and What It Means for the Classroom

(Daniel T. Willingham, 2009, 192 pp. Jossey-Bass, \$24.95)



By Britt Watwood

Daniel Willingham is currently Professor of Psychology at the University of Virginia. His research focuses on the brain basis of learning and memory and the application of cognitive psychology to education. He writes the "Ask the Cognitive Scientist" column for *American Educator* magazine, and is the author of *Why Don't Students*

Like School?

In this book, Willingham asks the question many of us have asked. After all, students are born as naturally curious creatures, so why are they turned off by education, even when they are paying to attend? Why can they remember the most trivial detail from a TV show or the words to a popular song, but not remember the answers on our tests? Willingham submits nine principles that he states explain this disconnect. Through these nine principles, he first attempts to explain how the minds of students work and then relate how to use that knowledge to improve teaching.

Principle 1: *People are naturally curious, but we are not naturally good thinkers; unless the cognitive conditions are right, we will avoid thinking.*

Willingham states that our minds are not especially well-suited for thinking; thinking is slow, effortful and uncertain. So rather than thinking in most situations, we revert to relying on our memories - following courses of action we have taken previously. Paradoxically though, people tend to find successful thinking pleasurable - we like to solve problems, provided they are not too tough. John Medina (2008), in his book *Brain Rules*, stated that we are all powerful and natural explorers, and Willingham would agree. For problems to be solved, he suggests that the thinker needs adequate information from the environment, sufficient room in working memory, and the required facts and processes stored in long-term memory. In translating this to our classrooms, he suggests that we stage our instruction so that students have relevant problems to solve, respecting in the process their cognitive limits. Varying how these problems are presented to students and changing the pace can keep us from losing the attention of our students.



We want students to be able to apply our lessons in new contexts, but the challenge is that the mind does not like abstractions. The mind prefers the concrete. Cognitive research therefore suggests that understanding abstractions is really remembering in disguise.

Principle 2: *Factual knowledge must precede skill.*

Willingham states that there is no doubt that memorizing lists of dry facts is boring, but it is equally true that trying to teach students

to analyze or synthesize in the absence of factual knowledge is problematic. These skills require extensive factual knowledge. He quoted Einstein, who said "Imagination is more important than knowledge"...and then spends the chapter refuting Einstein. From his cognitive perspective, knowledge is more important in that it is the prerequisite for imagination. For Willingham, this implies that in every course reading is fundamental. We should ensure that a knowledge base is in place before requiring critical thinking. This does not mean that boring presentations are okay. One of Medina's *Brain Rules*: We don't pay attention to boring things. Willingham suggests that one solution is look for some of that knowledge base outside of class - meaningful and pointed assignments using TV and internet videos can provoke learning.

Principle 3: *Memory is the residue of thought.*

Humans cannot store everything that happens in memory. So the brain selectively stores memories. And if one has to think about something carefully, the brain reasons that it might have to think about it again in the future, so it is a memory that should be stored. Medina stated this in two of his rules - Repeat to Remember and Remember to Repeat. Willingham provides some interesting research on memory. The lesson appears to be that material to be learned must spend some time in working memory (they think about it), but equally important, students need to think about the meaning of the material. It does you little good to use a clever video as an attention getter if at the end of class, the students remember the video but not the material covered.

Principle 4: *We understand new things in the context of things we already know, and most of what we know is concrete.*

We want students to be able to apply our lessons in new contexts, but the challenge is that the mind does not like abstractions. The mind prefers the concrete. Cognitive research therefore suggests that understanding abstractions is really remembering in disguise. If students are given lots of examples of a concept, the chances improve that they will then see how to apply a concept to new

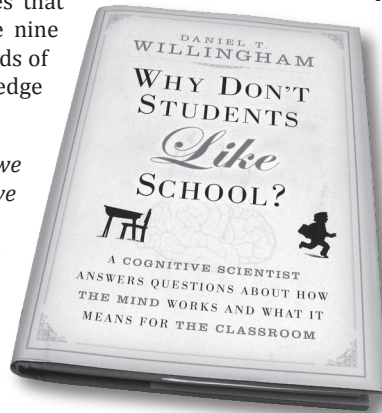
situations. Many of us have experienced the students who parrot our words back to us...but appear to not really understand. They exhibit shallow knowledge of the material. Students with deep knowledge tend to understand not just the parts but the whole. Therefore, it helps students to not only provide examples but to also ask them to compare the similarities and differences between examples. Deep knowledge should be your goal, but Willingham also argues that we should be realistic about just how deep our students can get in our short time with them. At best, we are launching them on a voyage of discovery.

Principle 5: *It is virtually impossible to become proficient at a mental task without extended practice.*

In *Outliers*, Malcolm Gladwell (2008) stated that what Tiger Woods, Mozart, and Bill Gates had in common was ten thousand hours of practice. Willingham agrees that practice is crucial - it helps one gain competence, helps one improve, helps protect against forgetting, and helps in transfer to new situations.

Principle 6: *Cognition early in training is fundamentally different from cognition late in training.*

Willingham notes that experts did not start out thinking as experts; they thought as novices. From his point of view, students are ready to comprehend but not ready to create knowledge. We should therefore



not necessarily place students in positions where they are expected to create new knowledge (unless our reason is to have them take the journey, not create the destination).

Principle 7: *Students are more alike than different in how they think and learn.*

There will probably be some push-back on this principle, but Willingham basically states that there really are not different learning styles. He argues that what we consider as styles are really differences in cognitive abilities. From his point of view, there is little substantive research that demonstrates the existence of multiple intelligences. So rather than focusing on differences in students, he suggests focusing on differences in content. Delivering the same content in multiple ways creates multiple examples and provides change, which adds interest. Medina might agree with Willingham. He suggested in *Brain Rules* that instructors should stimulate more of the senses - and that vision trumps all other senses.

Principle 8: *People do differ in intelligence, but intelligence can be changed through sustained hard work.*

Alvin Toffler (1970) in *Future Shock* noted that the illiterate of the twenty-first century would not be those who could not read and write, but rather those that could not learn, unlearn, and relearn. Willingham suggests that intelligence is not a fixed trait, but rather a malleable one that can be impacted through hard work. Labeling

students as dumb or slow becomes self-fulfilling. He suggests rather that we focus on and praise effort and process, not ability. If we treat failure as a natural part of the learning process and encourage hard work, we create a more positive learning environment.

Principle 9: *Teaching, like any complex cognitive skill, must be practiced to be improved.*

The previous eight principles apply equally to use as teachers. We therefore need to practice, reflect on our processes, and seek feedback to improve.

Willingham concludes by noting that cognitive science can help us improve education, but it is not the whole story. Classes are not just cognitive spaces but also emotional, social, and even motivational spaces. Small and Vorgan (2008) in their book *iBrain* suggested that due to a generation immersed in digital media, a new digital divide is developing where younger students are comfortable online but lack social skills, whereas their older teachers are social but need to hone their technical skills. Willingham would suggest that understanding cognition can help balance these conflicting concerns in the classroom. His final thought bears repeating: "Education makes better minds, and knowledge of the mind can make better education."

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

Book Review: *Lost in the Meritocracy: The Undereducation of an Overachiever*

(Walter Kirn, 2009, 211pp. Doubleday, \$24.95)



By J. M. Lucas

Riding the bus to St. Paul for the SATs, Walt Kirn's football buddies sip cherry schnapps from pints they keep tucked under their varsity jackets. Twice they offer Walt a sip, and twice he declines. His scholastic ambitions have begun to set him apart from the other high school jocks. He

turns away from them, imagining himself heading east, like the state's most famous writer, F. Scott Fitzgerald, author of the only work of literature that he managed to read from cover to cover as a teenager.

His scant knowledge of literature and the other subjects he "studied" in school is not a barrier. The fact that he nevertheless excels academically is the crux of Walt's problem: "No one ever told me what the point was, except to keep accumulating points, and this struck me as sufficient."

With such maneuvering as answering teachers' questions by rephrasing them into complicated riddles, Walt continues on a trajectory that he rides from kindergarten through Princeton. As an undergraduate, he learns that "the deployment of key words was crucial, just as the recognition of them had been on the SAT." A paper that demonstrates no real knowledge of literary theory (he had none) but that includes "heuristic" or "praxis, or—better yet—"semiotically unstable" garners him an "A."

Though his real education begins after he receives his diploma, he dedicates *Lost in the Meritocracy* to "the humane

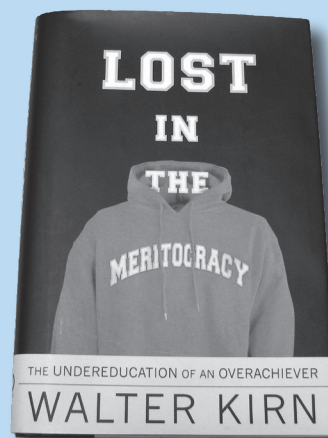
and dedicated educators who helped [him] find the way when [he] could barely see the path." One of the educators he names is fiction writer Joyce Carol Oates, which leads readers to wonder if her Creative Writing course at Princeton, where students make lies that tell truths, may have been one of the only classrooms where his lies were laid bare.

Walt begins reading in earnest only after graduation when a summer cold turns to pneumonia. Curled up with his mother's classics for the masses, he embarks on the education that he has denied himself in his pursuit of credentials rather than knowledge.

Coming of age stories and indictments of American education abound. Still, *Lost in the Meritocracy* distinguishes itself not as a hybrid of the two (though it is), but rather as a compelling narrative by a novelist who endows his memoir with the narrative arc of good fiction, revealing one of

the troublesome realities that we as college educators face: not simply that so many students are treading water, but that so many who *seem* to be swimming are treading water, too.

- J. M. Lucas, Assistant Professor, University College, Focused Inquiry Program



VCU Teaching is a newsletter providing news and information from the Center for Teaching Excellence at Virginia Commonwealth University.

Susan Polich, Ed.D., editor
Gaurav Gupta, designer
VCU Teaching
Center for Teaching Excellence
1015 Floyd Avenue, Suite 5116
P.O. Box 842015
Richmond, Virginia 23284-2015
Phone: (804) 827-0533
E-mail: smpolich@vcu.edu
Website: www.vcu.edu/cte

VCU CENTER FOR TEACHING EXCELLENCE 
V i r g i n i a C o m m o n w e a l t h U n i v e r s i t y

Virginia Commonwealth University is an equal opportunity, affirmative action university providing access to education and employment without regard to age, race, color, national origin, gender, religion, sexual orientation, veteran's status, political affiliation or disability.



VCU | Virginia Commonwealth University
Center for Teaching Excellence
1015 Floyd Avenue, Suite 5116
P.O. Box 842015
Richmond, Virginia 23284-2015

CTE Resources and Services

- Workshops
 - Summer Institutes
 - Individual or Department consultations
 - Small Grants Program
 - New Faculty Orientation
 - Faculty Learning Communities
 - Instructional Technology Programs
 - Junior Faculty Mentorship Program
 - Online Resources
 - Online Teaching and Learning Resource Guide
 - Classroom Performance System Guide
 - New Faculty Resource Guide
 - Teaching Large Classes Guide
 - Classroom Assessment Techniques Guide
 - Faculty Expertise Database
 - Video Tutorials: Syllabus Writing, Writing Course Objectives, Creating Rubrics
 - Online subscriptions: The Teaching Professor; Online Classroom, The National Teaching and Learning Forum
 - Other Services: a lending library, classroom observation, classroom videotaping, CPS loan
- For more information about these resources, please visit:
www.vcu.edu/cte/resources