Sometimes it takes a village to get a grant. Dr. Ron Uhlig thought the wireless tablet PCs would enable students to actually engage in learning practice, instead of passively watching demonstrations and then going home to try apply the principles. Uhlig and colleagues Ali Farhani, and Shekar Viswanathan collaborated on writing the HP grant (See Video), and went on to conduct the studies.

The researchers wanted to find out if students could learn complex information and concepts better in less time, and stay more engaged over long class sessions. Using 21 HP Tablet PCs linked to a Wi-Fi network, they collected data from 150 students in five graduate courses. Pedagogical strategies enabled by the tablets included tablet-based exercises and real-time feedback on learning.

The results were striking. Performance on mid-term exams, after students completed the carefully designed exercises, increased from 27 percent to as much as 94 percent. The average improvement in overall course grades was seven percent.

Student satisfaction was high, commenting: "the polls and problems we needed to solve helped me to stay more engaged in the class" and "I'm really impressed with the tablet PC. It's really good for listening in classes." Some students pointed to challenges as well: "It was a new way to learn so it took some time to adjust to it."

Instructors were also pleased with the technological assist. According to one experienced award-winning teacher: "The tablet PCs gave me the power to teach"

The researchers note that teaching with tablets does involve some additional thought and, perhaps, work. For example, exercises do stimulate student thinking but, if the exercises are not carefully designed, learners may just copy and paste rather than thinking. In order to support learning outcomes at the higher levels of Bloom’s Taxonomy, faculty may need to take more time to develop effective exercises.

For the researchers, a raft of papers and presentations have followed the studies—so far, the team has participated in two poster sessions and submitted three papers to peer-reviewed publications, including the University’s Journal of Research in Innovative Teaching, the American Society for Engineering Education, and the Journal of Engineering Education.

The 2008 HP Leadership Grant focused on using the tablets to teach video game design. Researchers hope to learn more about using the technology to teach the elements of game creation—mathematics, physics, and engineering, graphic design—to college and pre-college students.

Instructor James Jaurez and other colleagues have introduced the technology at San Diego-area high schools, including schools attended by at-risk youth as well. (See Video)
IRB Members
Anne Spillane, Ph.D.
Brian P. Simpson, Ph.D.
Chandrika M. Kelso, JD
Cheryl Anisman, Ph.D.
Cynthia E. Sytsma, M.ED.
David Karell, Ed.D
Denise E. Tolbert, Ph.D.
Dina Pacis, Ed.D.
Donna Elder, DED
Glee Shaddock, M.A.
Henry Venter, Ph.D.
Ismail M. Sebetan, Ph.D., M.D.
James E. Guffey, Ph.D.
John Carta-Falsa, Ph.D.
Mark Dannenberg, MIM
Mary E. Hazzard, Ph.D.
Mary Kracun, Ph.D.
Richard Weaver, Ph.D.
Ronald Saltinski
Roxanne Lauridsen, M.S.
Valerie Alexander, Ph.D.
Wayne Padover Ph.D.

Latest IRB stats
July 2008 – March 2009
Total Applications: 471
IRB Exemptions: 158
Expedited Approvals: 194
Denials : 4

IRB BLURBS
By Roxanne Lauridsen
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NEW SYSTEMS SOON ONLINE
The Office of the Institutional Review Board recently announced the adoption of two industry leading systems: IRBNet and The Collaborative Institutional Training Initiative. The new systems will be in place in May.

The IRBNet suite of tools is a robust set of electronic tools supporting the management, submission, review and oversight of our research protocols. Some of IRBNet’s many features include electronic document management, web-based protocol sharing and collaboration, automatic notifications, electronic submissions and reviews, and important audit capabilities including electronic revision histories, electronic signatures, and event tracking.

The Collaborative Institutional Training Initiative (CITI) is a web based training program in human subject research protections that ensures compliance with federal and institutional policies. All researchers, faculty sponsors, and IRB reviewers must complete the training.

The CITI course site provides research ethics instruction in various aspects of the responsible conduct of research (RCR) including human subjects protection, health information privacy and security, research misconduct, data management, authorship, peer review, conflict of interest, mentoring, and collaborative science.

Researchers who plan to submit projects for IRB review can log on at http://www.citiprogram.org/ to complete the required investigator certification prior to applying for IRB approval.

If you would like to serve on the Institutional Review Board, please let your school dean know. It does require a real commitment to students, willingness to learn appropriate research procedures, and attention to deadlines.

Mail from Ismail
By Ismail Sebetan
Chair, Research Council
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The Research Council has been active this year. Michael Maxwell has put together the Lecture Series since October, bringing the scholarly research of both faculty and faculty members to the National University community.

All of the lectures have been captured on video and several have been streamed live. The University is looking for a place to store the lectures so that they can be viewed on demand.

Connie Fajardo and Mohammed Nadeem have been working on the joint presentation for new scholars that they will make once again at the upcoming Spring Symposium. Last year, the event drew a full house and one full-time faculty member, Dr. Jeffrey Mueller who attended the presentation, used what he learned from presentation to publish his first article successfully.

I have worked hard on the Student Scholarship Conference that will also be held at Spring Symposium. It is exciting to see the commitment of faculty to the intellectual development of students and to have the opportunity to see the results of our work.

Roland Fleck is planning a book fair that would feature the books written by University faculty members. And Joan Van Tassel has published this newsletter to keep everyone informed about research activities at the University.

We have had many responses for requests to faculty to post their scholarly accomplishments in the Scholarship Directory. If you have not submitted your work, we encourage you to do so—it is an important part of collegiality and creating a learning community for us all.

We thank the Senate Research Committee for their hard work and commitment to research. And we very much appreciate the support of the provost, Dr. Tom Green, for all he does to foster research at the University.
Grants-At-A-Glance

By Michelle Hills

Director of Grants, Contracts, and Budget, Office of Sponsored Programs and Research, mhills@nu.edu, ext. 8342

The Office of Sponsored Programs and Research (OSPR) exists to support National University’s faculty and researchers in their efforts to secure externally funded sponsorship from various sources (primarily governmental) to support program enhancement, scholarly research, and professional development. In the spirit of the NU2010 strategic objective for academics and research, the OSPR has extended an invitation to the entire academic community to offer assistance and guidance in grant prospecting, application compilation and submission, post-award administration, and compliance oversight.

In the past two fiscal years, the OSPR assisted faculty in submitting nearly 30 grant proposals and secured over $2 million in new grants from both government and private sources. We continuously invite all interested parties to bring forward their research interests and projects for which external funding and support might be sought.

Notices of upcoming grant opportunities and other federal updates from public funding agencies are received on a regular basis. The OSPR can provide you with specific information on a grant or initiative that you may consider pursuing.

WHAT’S AHEAD IN 2009 – 2010?

The American Recovery and Reinvestment Act of 2009 was signed into law by President Barack Obama on Tuesday, February 17, 2009. This historic legislation seeks to immediately stimulate job creation during these challenging economic times by cutting taxes and investing hundreds of billions of dollars over the next two years in critical sectors such as energy, health care, infrastructure, and education.

The money will be invested in the following categories (figures approximate):

- $5 billion in incentive grants to pursue higher standards, quality assessments, robust data systems and teacher quality initiatives, including $650 million to fund school systems and non-profits with a strong track record of improving student achievement.
- $12 billion for IDEA (the Act which funds Special Education Programs)
- $5 billion for early childhood education, including Head Start, early Head Start, child care block grants, and programs for infants with disabilities;
- $2 billion for other education investments, including pay for performance, data systems, teacher quality investments, technology grants, vocational rehab, work study, and impact aid.

SUBMITTING A GRANT PROPOSAL

- Build support: Advise school dean and Michelle Hills that you want to pursue a grant
- Complete the Proposal Review Form
- Secure approval of the Proposal Review Form from the department chair and dean.
- Forward approved form, along with approval documentation from the IRB to Hills at OSPR for project and budget approvals.

WRITING GRANT WORKSHOPS

The dates and times for OSPR workshops will be announced in the near future:

Grant Basics
Grants 101
When the Research Council was formed in 2004 its stated purpose was “to provide leadership that enhances National University’s distinction in research, scholarship, and creative activities.” Since that time, the Council has organized faculty scholarship sessions at the Fall Assembly, student paper presentations at the Spring Symposium, and the faculty lecture series. The Faculty Scholarship Directory continues to capture the impressive scholarly work by our faculty; hopefully we will also be able to increase faculty participation in documenting their research.

As the University continues its work to develop remarkable schools there is probably no better way to demonstrate this to the outside world than through faculty scholarship. We know we have remarkable programs; we know our students are well prepared for their current and future careers; we know how good we are. As more of you attend conferences and publish your work, more and more people will know what I do: that National University faculty are both talented and dedicated to their profession and discipline.

I hope you like the new format of the National University ScholarSphere and continue to support the University through your research and scholarship.

Ongoing Research at National University

Bruce S. Buchowicz, Creativity in the Family Firm.


Bettina Moss, Metaphor As Sex; Symbolic Intimacy and Cultural Transformation in the Movies. Series of papers presented at three academic conferences and preparing book proposal. Applied for Presidential Scholar Award.


_____, Images of Exotica: Native Hawaiians in Hollywood Film. Presentation at Popular Culture/American Culture national conference.


Louis Rumpf, The Representation of War and Civility in the News: The Forgotten War. To be submitted to the Hawaii International Conference on Arts and Humanities.

Dr. Stuart E. Schwartz, Online Support Groups for NU Special Education Graduates: Reducing Attrition and Improving Confidence. For presentation at Council for Exceptional Children, Teacher Education Division Conference.


_____, Politics 4.0. Regular articles on innovation in political and cause marketing for Winning Campaigns magazine.

Diana Wheeler & Linda Smedly, School Psychologists: Leaders for the 21st Century

Diana Wheeler, Zhonghe Wu, & Enid Acosta-Tello, The Use of Dynamic Assessment and Mediation Learning with 6th-grade Students in Mathematics.

Zhonghe Wu, Using Errors as Springboards for Understanding of Students’ Cognition in Algebra Readiness. Partially supported by NSF grant through Middle Tennessee State University.


_____, Forbidden Spaces, Imperial Prerogatives, and Transgressive Desires: Herman Moll’s Early Eighteenth Century Geography of Spanish America. Paper presentation at International Conference of the International Association for the Study of Environment, Space, and Place.

Letter from the Editor

The Research Council newsletter has a new title and look, and will now come directly to your inbox. This issue even has a link to a short video of Ron Uhlig and James Jaurez discussing their research project.

The Council hopes you will like the ScholarSphere and would appreciate any feedback about it that you might have for us. We also hope that you will send us regular updates of your scholarship activities, as well as posting them to the National University Scholarship Directory. Every newsletter will feature a particular faculty project, and if you have any ideas for projects that we should cover, please send someone on the Research Council an e-mail and let us know. Or just e-mail me at jvantassel@nu.edu.

The Research Council is appointed by the provost to encourage scholarship and to foster a culture of learning at National University. The group meets once a month and undertakes activities such as the National University Lecture Series, the Scholarship Directory, the Research Council newsletter, the Faculty and Student Scholarship Conferences, the National University Journal of Innovative Teaching, and the book fair.

—Newsletter Editor Joan Van Tassel

Student Scholarship Conference at Spring Symposium

By Joan Van Tassel

The Modernist Influence of Marx and Saussure on Langston Hughes—by Annjennette McFarlin (Janet Baker)

To Be Black or Not to Be—by Yolanda Brown-Spidell (Lorna Zukas)

Where I’m Calling From—by Neil N. Newton (Frank Montesonti)

Kanban OWR Solution Set—by Daniel Hathaway (Albert Cruz)

Human DNA Extraction and Identification from Feces—by Jenna Cromwell (Ismail Sebetan)

Analysis of Lipstick Using Reverse Phase Chromatography Techniques—by Larivhie Delacruz (Ismail Sebetan)

The Search for Trace Constituents of Alcohol Stains On Clothing—by Meredith Winton (Ismail Sebetan)

Intraspecific and interspecific mate attraction in praying mantids—by Kevin Gallego (Michael Maxwell)

A uniform protocol to address the rapidly accumulating unidentified human remains and missing persons—a nation’s silent mass disaster—by Marzena H. Mulawka (Ismail Sebetan)

The Effectiveness of the Inclusive Practices at Mark Twain High School on the Academic Progress of Special Education Students—by Kevin Gallego (Robyn Hill)

Behavior Support Plan: A solution for misbehavior in the classroom for students with both emotional disturbance (ED) and mild mental retardation (MMR)—by Kathrina A. Sarte (Joan Sebastian)

Designed to Fail—by Aimee Reece (Joan Van Tassel)

Capstone Project: ePortfolio—by Tamika Burgess (Joan Van Tassel)

Capstone Project: ePortfolio—by Carol Kennedy (Joan Van Tassel)

Capstone Project: ePortfolio—by Coleman Lunt (Joan Van Tassel)

Capstone Project: ePortfolio—by Angela Robosa (Joan Van Tassel)