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EXECUTIVE SUMMARY

For the 2011-2012 academic year, a total of 40 faculty and one supportive professional staff (SPS) member were awarded sabbatical leaves. Of the 41 who were offered, 40 accepted their awards. Eight faculty retired, and one faculty left the university prior to completing the sabbatical leave outcomes survey. Out of the remaining 31 faculty and staff, 100 percent participated in the survey conducted in the fall of 2014 to ascertain the outcomes of their sabbaticals. Faculty from six of the seven colleges accepted sabbatical leaves in 2011-2012: 52.5 percent of accepted sabbatical leaves were from the College of Liberal Arts and Sciences, 17.5 percent were from the College of Visual and Performing Arts, 12.5 percent were from the College of Education, another 5 percent each were from the Colleges of Engineering and Engineering Technology, Health and Human Sciences, and Law. In addition to the colleges, one SPS member from the College of Liberal Arts and Sciences Foreign Language Residence Program also had a sabbatical, representing 2.5 percent of total sabbatical leaves.

The faculty and staff were very productive in advancing their scholarly work. They reported that as a result of their sabbatical leaves, they published 15 books and book chapters, published 78 journal articles, and made 25 contributions to conference proceedings. In addition, they made seven music recordings and seven contributions to public media and eight reports. The results of sabbatical work were also presented at 180 international, national, and regional meetings. They produced 63 works of art, including national and international music performances, exhibitions, and illustrations. Faculty submitted 36 applications for grants and projects that produced funding for 25 initiatives in excess of $2.1 million. Faculty also reported that they revised or created a total of 36 graduate and undergraduate courses as a result of their sabbatical leaves, benefitting more than 860 students annually.

This report is presented in two sections: a narrative on the overall outcomes for those first awarded sabbatical leaves in academic year 2011-2012 and a report on specific outcomes, as reported by the faculty, for six of Northern Illinois University’s seven colleges, and SPS from the College of Liberal Arts and Sciences.
OUTCOMES REPORT
2011-2012 SABBATICAL LEAVES

Northern Illinois University awards sabbatical leaves for the purpose of supporting the research and artistry of faculty and staff to strengthen its academic programs. Proposals for leaves are evaluated on the quality of the proposed scholarship, the capacity of the applicant to conduct the proposed work, and the likelihood that the proposed project will be completed (Constitution and Bylaws of Northern Illinois University, Art. 8). At the request of the Northern Illinois University Board of Trustees, the university implemented a process to enumerate the products that resulted from sabbatical leaves, and faculty and staff were asked to report on awards and honors; curricular developments; outreach; grants and projects; performances, exhibitions, and recordings; presentations; publications; other outcomes; and works in progress. They were also asked to offer their reflections on the sabbatical experience, its outcomes, and its significance on teaching, research/artistry, and service.

For the 2011-2012 academic year, a total of 40 faculty and one supportive professional staff (SPS) member were awarded sabbatical leaves. Of the 41 who were offered, 40 accepted their awards. Eight faculty retired, and one faculty left the university prior to completing the sabbatical leave outcomes survey. Out of the remaining 31 faculty and staff, 100 percent participated in the survey conducted in the fall of 2014 to ascertain the outcomes of their sabbaticals. Faculty from six of the seven colleges accepted sabbatical leaves in 2011-2012: 52.5 percent of accepted sabbatical leaves were from the College of Liberal Arts and Sciences, 17.5 percent were from the College of Visual and Performing Arts, 12.5 percent were from the College of Education, another 5 percent each were from the Colleges of Engineering and Engineering Technology, Health and Human Sciences, and Law. In addition to the colleges, one SPS member from the College of Liberal Arts and Sciences Foreign Language Residence Program also had a sabbatical, representing 2.5 percent of total sabbatical leaves. (Table 1).

Table 1. Sabbatical Awards by College and Office

<table>
<thead>
<tr>
<th>College</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Engineering and Engineering Technology</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>Health and Human Sciences</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>Liberal Arts and Sciences</td>
<td>22</td>
<td>55.0</td>
</tr>
<tr>
<td>Visual and Performing Arts</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Of the faculty reporting on the outcomes of their sabbatical leaves who have faculty rank, eight (26 percent) were professors, 22 (71 percent) were associate professors, and one (3 percent) was a SPS member. Faculty were given the opportunity to report their outcomes in broadly defined categories reflecting the breadth of the scholarly work of faculty and staff across disciplines. The outcomes reported by faculty and staff are sorted according to category and appear in Table 2. Additional details on selected outcomes are also reported below.

**TABLE 2. RESULTS OF SABBATICAL LEAVES**

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications</td>
<td>140</td>
<td>26</td>
</tr>
<tr>
<td>Presentations</td>
<td>180</td>
<td>33.5</td>
</tr>
<tr>
<td>Grants</td>
<td>36</td>
<td>6.7</td>
</tr>
<tr>
<td>Awards and honors</td>
<td>10</td>
<td>1.9</td>
</tr>
<tr>
<td>Outreach</td>
<td>28</td>
<td>5.2</td>
</tr>
<tr>
<td>Curricular development</td>
<td>36</td>
<td>6.7</td>
</tr>
<tr>
<td>Works of art and artistic works</td>
<td>63</td>
<td>11.7</td>
</tr>
<tr>
<td>Works in progress (submitted)</td>
<td>26</td>
<td>4.8</td>
</tr>
<tr>
<td>Other significant contributions</td>
<td>19</td>
<td>3.5</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>538</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Publications**

The scholarly work conducted during sabbatical leaves resulted in 140 publications; of these, 78 (55.7 percent) were journal articles; 15 (10.7 percent) were books or book chapters; 25 (17.9 percent) were conference proceedings; 7 (5 percent) were music recordings; 7 (5 percent) were contributions to public media; and 8 (5.7 percent) were reports.

**Presentations**

Faculty reported a total of 180 academic presentations resulting from their sabbatical work; these were presented at regional, national, and international venues. International presentations were made in Australia, Austria, Canada, China, Costa Rica, Czech Republic, England, Germany, Greece, Ireland, Mexico, New Zealand, Peru, Russia, Scotland, Slovenia, Spain, Sweden, Switzerland, Taiwan, and Trinidad & Tobago. Conference and presentation venues in the United States included Atlanta, Austin, Boulder, Chicago, Denver, Detroit, Honolulu, Indianapolis, Las Vegas, Los Angeles, Louisville, Madison, Memphis, Miami, Milwaukee, Minneapolis, Nashville, Pensacola, Philadelphia, Pittsburgh, San Antonio, San Francisco, Seattle, and St. Louis, among others.

**Grants**

Faculty submitted 36 applications for grants and projects that produced funding for 25 initiatives in excess of $2.1 million. Funding sources included the General Motors Company, Illinois Small Business Development Center, International Trade Center, Kane County Funders Consortium, National Endowment for the Humanities, National Science Foundation, Northern Illinois University Venture Grant Opportunity, Pi Lambda Theta, United States Department of Energy, and the United States Department of Education. The funding enabled faculty to contribute to the understanding of action research for preservice special educators; cultural models of nature across cultures; modern manufacturing education; thin ferritic sheet forming limit tests; nutrition at farmers markets and other
community food systems; adiabatic impact foil forming processes; physical vapor deposition coating process parameters; a simulated patient care experience; conventional and energy recovery linac (ERL)-based recirculator electron cooling for an electron ion collider; nonlinear dynamics of high-brightness beams and phase space manipulations; copper and gold in sulfur-rich magmatic-hydrothermal systems; enhancing mathematics pedagogy with connections in science and engineering; dynamical sampling and reconstruction for sensing networks of physical fields; the development of novel anti-infective and herbicidal agents; unconventional electrodynamics in unconventional solids; and creating a digital portable database with audio/video excerpts of significant jazz performances.

**Curricular Developments**

As a result of sabbatical scholarship and artistry, faculty reported that they revised or developed new course content, lectures, tutorials, and supplemental materials for 36 courses benefitting more than 860 students annually. In addition, several graduate certificate programs were developed and face-to-face courses were converted to online format.

**Other Significant Contributions**

Sabbatical leaves resulted in other noteworthy achievements, which include but are not limited to: serving as a National Science Foundation reviewer; developing a video to describe the results of the collaboration between Northwestern University Feinberg School of Medicine and Northern Illinois University College of Health and Human Sciences; assisting two students in receiving $4,800 in grant funding for travel to Ireland to co-present their research; three patents (universal jack stand, vehicle jack stand, and high performance computing for three dimensional proton computed tomography (HPC-PCT)); examining Chicago Police Department and Safe Humane Chicago animal-related crime data; preparing the Department of Foreign Languages and Literatures Program Report for the Preparation of Foreign Language Teachers (NCATE) which lead to full NCATE recognition for the department; development of a physics colloquium management web-based software system; development and approval of the Teacher Leadership endorsement for the Master of Science in Teaching, Middle School Mathematics Education specialization degree; migration of the Foreign Language Instructional Technology Graduate Certificate Program from face-to-face to online format; delivering a one-week workshop on the creation of historic silverware; exhibition curation; and artist in residency.

**Reflections**

Faculty were asked to reflect upon their sabbatical experience; excerpts of these reflections are provided below. Additional reflections are reported in each college section of this report.

“I am sincerely grateful for the opportunity the sabbatical provided me to dedicate myself to my research, to improving my already existing courses, and to develop new ones. I believe that the time I was able to spend on writing, planning, and reflection was truly time well spent.”

“I am indebted to Northern Illinois University for granting me this personally, professionally, and pedagogically enriching leave.”
“The sabbatical leave gave me the time and opportunity to reflect on the progress of my research program as well as determine and focus on its more promising directions.”

“The sabbatical result has been a watershed. This has proved to be one of the most informative and productive periods of my career.”

“This leave time is greatly responsible for new and contemporary expansions of our school, both in terms of pedagogy and marketing.”

“The sabbatical offered me a wide range of opportunities for growing and learning, both as a musician and as an educator.”

“My 2011 sabbatical played a key role in my personal development and professional success. It was a valuable experience that allowed me to grow as a musician, educator and most importantly as a human being.”
COLLEGE OF EDUCATION

Publications

Journal Articles


Books


Book Chapters


Conference Proceedings


Presentations


Shernoff, D. J. (2012, April). Utilizing out-of-school time program strategies to reduce risk and promote positive social, emotional, and academic outcomes. In L. M. Chauveron (Chair), *Utilizing out-of-school time program strategies to reduce risk and promote positive social, emotional, and academic outcomes*. Symposium discussant at the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.


**Grants**


**Awards and Honors**

Curricular Developments

Butler, R. P. (2012, Fall). ETT 740, Instructional Technology Foundations. Average of 20 students. Revised this course to better reflect historical research methodologies, including the technological sublime and technological determinism.

Butler, R. P. (2014, Fall). ETT 590, Historical Article Writing. Average of five students. Revised course to assist doctoral students in writing their first historical research articles.

Other Significant Contributions


Work in Progress

Butler, R. P. *Historical research methods in educational technology*. Paper to be presented at the Association for Educational Communications and Technology Annual Conference, Jacksonville, FL. Manuscript submitted for publication.

Reflections

Butler, R. P. The purpose of my sabbatical leave was to take the steps necessary to encourage educational technology and other scholars to accept the usefulness of histories of technology, as well as understand how those who write and publish our textbooks can influence our beliefs, specifically, in this case, in technological innovations. As such, my sabbatical addressed technological innovations as seen through the lenses of selected American history, geography, and social studies textbooks for middle/junior high, and senior high schools, within a hundred year range, 1880-1980. This was done to determine how the points of view of the textbook authors and publishers influenced (and continue to influence) generation after generation of American students with their portrayals of United States technology.

My findings have informed several of my classes in instructional technology, provided material for three international presentations, and resulted in several publications. I have compiled a plethora of material on this subject which I plan to use in a future book. This will augment previous books I have authored dealing with copyright law and technology or school library and instructional technology administration.

Conderman, G. During my sabbatical, I wrote a substantive book on teaching learning strategies to middle and high school students with mild disabilities. This book fills a void in the professional literature in special education and reflects evidence-based instructional practices for instructing adolescents with high-incidence disabilities. I also authored or co-authored 12 peer-reviewed manuscripts. My sabbatical offered me the opportunity to analyze data I had previously collected but did not have the time to develop into manuscripts. I also made six presentations at professional
conferences. Finally, I observed in over 20 middle and high school general and special education classrooms in Illinois and Iowa to better understand how teachers co-teach, use technology, and teach strategies. I would not have had the flexibility in my schedule to complete these observations if I did not have my sabbatical. These observations provided a contemporary context for me to write my book, provided examples for students in my university courses, and upgraded my own professional skills.

Johnson, J. W. The sabbatical leave gave me the opportunity to conduct a study at a more intensive level while maintaining a daily presence in a school for students with special needs. The relationships I developed have provided numerous opportunities to collaborate with local school districts. I am currently completing additional manuscripts to submit for publication as well as developing a manual to assist teachers in developing video-based materials to teach self-management and coping skills to students with special needs. I have piloted these materials in training sessions with the teachers and staff of Glen Oaks Therapeutic and the Oasis program in St. Charles, IL. More recently, I have been asked by United Cerebral Palsy of Chicago to conduct a day-long workshop on using video-based instruction to teach coping and self-management skills to individuals with special needs. I am using the sabbatical study as pilot data for a federal grant proposal in an effort to obtain funding to conduct additional research on the use of video-based instruction for students with emotional and behavioral disorders.

One of the most significant outcomes of my sabbatical to date is related to the recent approval of the Department of Special and Early Education “Board Certified Behavior Analyst” course sequence by the Behavior Analyst Certification Board. The work I completed during my sabbatical was included in the proposal submitted to the Behavior Analyst Certification Board as an example of the capacity of the department to collaborate effectively with schools in the implementation of behavior analytic services to learners with special needs.

Shernoff, D. J. The major projects of my sabbatical leave were writing a sole authored book of research, and launching an edited volume of research. The book, *Optimal Learning Environments to Promote Student Engagement*, was published by Springer in 2013. A major goal of the book was to extend the topic of student engagement in schools to include after-school, community and other contexts for youth development. The book first provided a historical, philosophical, conceptual, and empirical foundation for understanding engagement in schools, and then highlighted several school programs empirically shown to engage students. The book’s portrayals of empirically-based programs, including research findings about the extent to which they engage youth, was written to have implications for policy makers with respect to addressing the increasingly alarming problem of pervasive disengagement and school dropout. The book concluded with suggestions for educators and practitioners on how to create optimally engaging learning environments. In addition to authoring the book, I conducted observations of several programs in Chicago, IL; Los Angeles, CA; Kalamazoo, MI; New York, NY; and Charlottesville, VA. In 2014 the book was positively reviewed in the flagship American Educational Research Association journal, *Educational Researcher*.

A complete draft of the edited volume, *Engaging Youth in Schools: Evidence-based Models to Guide Future Innovations*, was also completed during my sabbatical leave. Fourteen chapters were submitted to my co-editor, Dr. Janine Bempechat of Wheelock College, and I. The volume was published by the National Society for the Study of Education, Teachers College, Columbia University, in 2014. Between the two book projects, a total of 30 chapters were completed. My sabbatical leave also enabled the writing of two articles and five book chapters; the delivering of six presentations; the serving as Chair of an American Educational Research Association Special Interest Group; and the serving as a reviewer for federal grants and peer-reviewed journals. The sabbatical leave also allowed for the updating and publication of the 2nd edition of the book, *The Individual-
Shimizu, H. During the sabbatical leave and the following year, I finished the draft of a book entitled, *Anthropology of the Heart: A Story of a Psychological Anthropologist from Japan*. This project is based in part on the dissertation research I completed in 1993, and follow-up interviews I conducted in 2008 with two of the participants from the original study. These two stories are “nested” within my own experience of having grown up in Japan, becoming an academic (anthropologist by training) in the United States, and experiencing the conflicts between these two identities. The book is meant to be a hybrid book, one targeted to both academic and non-academic audiences. It is written in a non-technical language, and asks the question, “How can one research the psychology of “others” when the researcher himself/herself is part of the ‘cultural psychology’ about which he/she studies?”

Currently, I am working with an editor to fine tune the book draft, which is an on-going process of inputs and revisions. I am tackling the challenge of expanding the audience beyond the traditional academic market and working to revise the manuscript to appeal to that broad audience.

On a personal side, the sabbatical gave me an opportunity to reflect deeply about the meaning of my scholarship. For example, I contemplated the limitation of the dualistic stance embedded in the career of an academic and a social scientist. The dualistic, intellectually detached perspective from which I worked to study “others” created a gap, which indicated a lack of authentic and empathic understanding of human experiences that both my research participants and I share. As I developed this theme in my book, I realized the need to look into the “vertical” (i.e., existential, spiritual and religious) dimension of life as opposed to merely seeking technical knowledge to advance the existing pool of scientific knowledge. I found that empathic understanding of others and oneself through mutual identification enriches and brings deeper meaning to the researcher’s and the research participants’ lives. This “non-dualistic” perspective as a scholar and researcher affected my teaching as well. Not only do I discuss the importance of becoming aware of one’s own subjectivity in the career of an educator and a researcher, I try to exemplify and share this insight with my students. In my comparative human development and qualitative research methods courses, for example, I share how I use my upbringing in Japan as an element of “critical subjectivity” for my research.

On a more practical level, the insight and appreciation I developed regarding the value of identifying closely with the people and environment with and in which I work connected me with a National Science Foundation funded research project on cultural models of nature and environment. I collaborated with Giovanni Bennardo of the Northern Illinois University Department of Anthropology to submit a research grant entitled, “Cultural Models of Nature Across Cultures: Space, Causality, and Primary Food Producers.” This research, now funded, enabled me to conduct a field trip to Japan, as well as to produce two book chapters and three presentations. Preliminary results of the fieldwork are to be presented in spring 2015 in Verona, Italy by the researchers who participated in this collaborative international research.
COLLEGE OF ENGINEERING AND ENGINEERING TECHNOLOGY

Publications

*Journal Articles*


*Grants*


*Outreach*

**Gau, J.-T.** (2013, June). Visited National Taiwan University of Science and Technology, National Cheng Kung University, and Tamkang University in Taiwan in June and July to develop international research collaboration and 4+1 bachelor of science/master of science degree program between Northern Illinois University and Tamkang University. Tamkang University, Tamsui District, Taiwan.

**Gau, J.-T.** (2013, June). Visited Zhejiang University of Technology in Hangzhou, Zhejiang, China, to promote the international research/education/training collaborations and 4+1 bachelor of science/master of science degree program between Northern Illinois University and Zhejiang University of Technology, Hangzhou, China.


**Curricular Developments**


**Reflection**

Gau, J.-T. I spent my sabbatical at Northern Illinois University and Purdue University working on micro foil forming at quasi-static speed and adiabatic impact processes. Dr. Cheng (Purdue) and I collaborated with Dr. Jennifer Mawdsley of the Chemical Sciences and Engineering Division of Argonne National Laboratory on forming fuel cell bi-polar plates. We plan to use the adiabatic impact process to form the fuel cell bi-polar plate and submit at least one joint publication and a proposal for external funding. During my sabbatical I designed micro dies that can be used in the adiabatic impact foil and powder forming processes. After the die designs had been completed, I visited one of my research collaborators in Taiwan (Metal Industries Research and Development Centre (MIRDC)) to discuss the die design and fabrication processes. MIRDC finished the die fabrications without cost in May 2012 and shipped them to Northern Illinois University in July 2012. One of my graduate students used the micro dies to complete his Master of Science thesis in the fall of 2012.
COLLEGE OF HEALTH AND HUMAN SCIENCES

Publications

Journal Articles


Public Media

**Presentations**


**Grants**

**Henry, B. W.** (2011). Kids pick their fruits and vegetables at the farmers market project. Sponsored by Kane County Funders Consortium. Awarded $4,783.
Henry, B. W. (2012). Northern Illinois University nutrition with the farmers market and other community food systems. Sponsored by Kane County Funders Consortium. Awarded $5,014.


Curricular Developments

Quinn, J. E., & Henry, B. W. (2013, Spring). FCNS 404/504, Nutrition and Community Food Systems. Average of five students. This course is offered as an elective for majors and other upper level Northern Illinois University students. Course redesign.


Other Significant Contributions

Henry, B. W. (2012). Developed PIVOT project video to describe the results of the collaboration between Northwestern University Feinberg School of Medicine and Northern Illinois University College of Health and Human Sciences. DeKalb, IL.

Rossetti, J. (2012-2013). Supervised two students who completed honor’s capstone projects, assisted them in receiving $4,800 in grant funding, and traveled to Ireland to co-present their research. DeKalb, IL.

Rossetti, J. (2012-2014). Member of the Mental Health Research Cluster at National University of Ireland, Galway, School of Nursing and Midwifery. Galway, Ireland.
Reflections

Henry, B. W. My sabbatical experience over the academic year 2011-2012, greatly benefited my professional growth and my ability to contribute to the teaching, research, and service mission of Northern Illinois University. I very much appreciated the support provided by my program area, Nutrition, Dietetics, and Hospitality Administration, and the school, college, and university administration. The sabbatical allowed me to develop an in-depth collaboration with a medical education team at the Simulation Technology and Immersive Learning program at Northwestern University Feinberg School of Medicine. With the combined support of Northern Illinois University and Northwestern, the team of researchers identified and tested a means to engage patients and caregivers in the evaluation of health care teams. This work included design and testing of the Patients’ Insights Observing Teams survey which was highly regarded by experts in the field of patient participation in health care. As a result of my presentation at the 2013 International Conference on Communication in Healthcare, we were invited to develop a manuscript for consideration in the peer-reviewed publication Patient Education and Counseling. We did so and are glad to see it is in print this fall 2014. This project has continued beyond the sabbatical year, and the transition of academic partners to other institutions including Order of St. Francis’s Jump Trading Simulation and Education Center, the University of Michigan, and Stanford University. Our research aims continue to include using patient/caregiver input to improve health care team services.

For me, the value of a sabbatical experience relates to my skills as a teacher, a community resource, and a researcher. My work during the sabbatical increased my research skills in the areas of learning assessment, instrument development, and validity testing. It included professional development in simulation research that was supported by Northwestern University. These skills enhanced my teaching of evidence-based research, counseling strategies for behavior change, and deliberative learning. In addition, the importance of interventions at the community setting for health promotion were highlighted by measuring parents’ behaviors and attitudes in this region and how we can better prepare our students to make professional contributions for health promotion. The sabbatical offered me the opportunity to expand my skills and build upon my years as a faculty member at Northern Illinois University. I look forward to continuing to research learning assessment that improves curriculum design and implementation at Northern Illinois University, and to support developing healthy communities, both in acute care settings and community environments.

Rossetti, J. I was granted a sabbatical during the spring semester of 2012. It was a most enriching experience and I exceeded my own professional and personal goals. I arrived in Ireland on January 14, 2012 and returned to the United States on April 6, 2012. During this time I was a visiting lecturer at the National University of Ireland, Galway’s (NUIG) School of Nursing and Midwifery. The Head of School, Dr. Kathy Murphy, my assigned mentor, Senior Lecturer and Psychiatric Nursing Graduate Program Director, Siobhan Smyth, Director of the Simulation Lab, Evelyn Burn, and the faculty members of the NUIG’s School of Nursing and Midwifery were most welcoming. The primary focus of my sabbatical was to increase my knowledge and improve my skills related to the use of simulation and to learn how to implement a full mission simulation, such as the “Mental Health Ward” at the Northern Illinois University School of Nursing and Health Studies. My specific objectives included learning specifics related to the preparation of the “Mental Health Ward Simulation,” observing the entire process of the “Mental Health Ward Simulation” from start to finish, developing a proposal to incorporate a Mental Health Ward Simulation into the undergraduate nursing program in the School of Nursing and Health Studies, and exploring the literature and becoming familiar with the pedagogy of simulation in nursing education—specifically psychiatric nursing education.

I exceeded the goals that I set out to accomplish during my sabbatical leave. Upon return to the United States I put together a team of faculty, nurses, and nursing students and prepared and delivered
the Mental Health Ward Simulation and research study. As a team we applied for two grants and were awarded one. I also collaborated with Linden Oaks Hospital where we were given permission to conduct the ward in one of their outpatient units so that a realistic environment could be utilized for the simulation. The team disseminated the information at national and international conferences and this innovative engaged teaching experience was highlighted in President Baker’s inaugural address. Due to the innovative nature of this simulation I was invited to lead a special edition on the use of simulation in psychiatric nursing education in the *Journal of Psychiatric Nursing and Mental Health Services*. The Mental Health Ward is the lead article of this special edition. My colleagues from NUIG’s School of Nursing and Midwifery and I have continued to collaborate. I still participate in the School’s Mental Health Research Cluster. I have had two successful study abroad trips to Ireland in which students have explored Ireland’s healthcare system. Finally, I have supervised two Honors Capstons related to my work in Ireland, assisted students in receiving grant funding and traveled with students to Ireland supporting them as they presented their capstone projects.
COLLEGE OF LAW

Publications

Public Media


Presentation


Grant


Outreach

Walton, J. A. (2012, June). Met with members of the Illinois Small Business Development Center, the Illinois International Trade Center, and the Northern Illinois University College of Law to discuss the development of an entrepreneur’s resource center at Northern Illinois University. We are currently discussing how the College of Law and other departments on campus might expand the offerings and assistance the Springboard Outreach program can bring to the areas business community. Illinois Small Business Development Center, Illinois International Trade Center, Northern Illinois University College of Law, DeKalb, IL.

Curricular Development


Other Significant Contributions


Works in Progress


Reflection

Walton, J. A. One purpose for my sabbatical leave was to pursue a patent prosecution case study through completion that would serve as a working example of the process for teaching patent law. The forms, correspondence, and first hand office action experiences with the United States Patent Office provided a basis for adding real life context to the theoretical case law and the statutory dictates of the course material that would not otherwise be available. The second purpose was to examine the process and obstacles involved in taking a business concept with legal and other academic implications from vague idea through finished market product. My goal was to examine where skill sets and expertise from a variety of university academic disciplines could be applied in a synergistic approach to cross campus learning. My thought was that these disciplines could be combined to create new academic benefits using existing academic assets.

The particular case study I used allowed me to see how academic units in law, business, engineering, communications, design, computer and software technology, and fine arts could contribute to the project. I found that students in all these units could have worked together and obtained real world application experience in this project.

For this case study, I relied mostly on outside resources for which I supplied the funding. However, I believe students working alone or with guidance from faculty or clinic-type advisors could have satisfied nearly every intellectual resource needed to complete this project. Indeed, the most difficult and technical challenges were met by volunteer or paid assistance from Northern Illinois University alumni. I hope to transfer what I learned in this case study experience to the Springboard Outreach or similar program to broaden the opportunities for Northern Illinois University students and enhance the outreach footprint for Northern Illinois University in the surrounding business community.


Tanis, E. A., Simon, A., … Frank, M., et al. (2012). The solubility of xenotime in aqueous fluid at 1.2 to 2.6 GPa and 300 to 500 °C: Extension of an in situ experimental technique to quantify trace element concentrations in fluid at high P and T. American Mineralogist, 97, 1708-1713.


Book


Book Chapters


**Conference Proceedings**


Public Media


Reports


Presentations


Blau, H. I. (2013, October). Table bases as unions of proper closed subsets. Paper presented at the Northern Illinois University Department of Mathematical Sciences Colloquium, DeKalb, IL.


Deskis, S. E. (2011, November). Traditional proverbs in the construction of the Old English Maxims I. Keynote address presented at the Proverbia Septentrionalia, Saskatoon, Saskatchewan, Canada.


Engel, M., Jr. (2012, August). Do animals have rights, and does it matter if they don’t? Paper presented at the Rocky Mountain Ethics Congress, Boulder, CO.


Frank, M. R. (2013, March). The role of sulfur in copper and gold mineralization. Invited presentation at the University of Nevada, Las Vegas, Las Vegas, NV.


Winkler, R. (2012, April). Emergent electromagnetism in bilayer graphene. Colloquium given at Department of Physics, University of Regensburg, Regensburg, Germany.


Winkler, R. (2012, May). Emergent electromagnetism in bilayer graphene. Colloquium given at Department of Physics, University of Würzburg, Würzburg, Germany.

Winkler, R. (2012, May). Emergent electromagnetism in bilayer graphene. Seminar presented at Department of Physics, ETH Zürich, Zürich, Switzerland.

Winkler, R. (2012, June). Emergent electromagnetism in bilayer graphene. Colloquium given at Department of Physics, University of Konstanz, Konstanz, Germany.


Winkler, R. (2012, October). Spins and pseudospins in graphene. Seminar, Department of Physics, University at Buffalo, Buffalo, NY.

**Winkler, R.** (2012, December). Electrodynamics in bilayer graphene. Seminar, National Taiwan Normal University, Taipei, Taiwan.


**Winkler, R.** (2013, December). Spins and pseudospins in graphene. Invited talk at the Kavli Institute for Theoretical Physics, University of California, Santa Barbara, Santa Barbara, CA.

**Grants**


Sims, T., Barber, N., … Stafstrom, J., et al. (2012). Integrated research and education on the biophysical basis for adaptation of agriculture and forest ecosystems to changing climate. Sponsored by the USDA National Institute of Food and Agriculture. $748,069. Not funded.


Awards and Honors


**Outreach**


Khoury, H. A. (2012, June). Coordinated professional development experiences with Rockford School District #205, Northern Illinois University Outreach Division, and leading Rockford-area STEM industries. Eighteen mathematics teachers were immersed on how mathematics is being implemented in STEM trades. Rockford School District #205, Rockford, IL.

Khoury, H. A. (2012-2014). Supported professional development opportunities for mathematics teachers in Naperville School District #203 (Naperville, IL), Rockford School District #205 (Rockford, IL), St. Charles School District #303 (St. Charles, IL), West Chicago School District #94 (West Chicago, IL), and West Aurora School District #129 (Aurora, IL).

Khoury, H. A. (2013, June). Coordinated professional development experiences with Rockford School District #205, Northern Illinois University Outreach Division, and leading Rockford-area STEM industries. Twenty-two mathematics teachers were immersed on how mathematics is being implemented in STEM industries. Rockford School District #205, Rockford, IL.


Ross, G. (2012). Historical archive of the Foreign Language Residence Program. Department of Foreign Languages and Literatures, Northern Illinois University, DeKalb, IL.

**Curricular Developments**

Burchfield, K. B. (2013, Spring). SOCI 330, Contemporary Topics in Sociology-Animals and Society. Average of 27 students. I developed this new course based on my research. It is now a permanent addition to the curriculum. New course.
Cassidy, W. P. (2012, Fall). JOUR 402, Advanced Reporting. Average of 15 students. Redesigned course to include a unit about influences on media content as well as an increased emphasis on the impact journalism has on society. Course redesign.

Cassidy, W. P. (2012, Fall). COMS 691, Research in Communication Studies. Average of 10 students. Redesigned course to include sessions where students conducted content analysis research. Course redesign.

Cooke-Plagwitz, J. (2012, Fall). FLST 482, Special Topics in Literature II. Average of 10 students. This new course focuses on German children’s and youth literature from the late 18th century to the present. Using a variety of media and exploring a variety of genres, the course pays special attention to the educational value of the works discussed. Students have the opportunity to practice and improve their spoken and written German skills through class discussions, essays, homework assignments, vocabulary lists and oral presentations. New course.

Engel, M., Jr. (2013, Spring). PHIL 301. Junior Writing Seminar. Average of 15 students. New course designed to teach philosophy majors how to write professional philosophy papers (i.e., the kinds of papers that are appropriate to submit to philosophy conferences and journals). New course.


Frank, M. R. (2012, Fall). GEOL 444/544, Economic Geology. Average of 33 students. Redesigned this course and developed new independent study projects with an emphasis on current industry terminology and theories. Course redesign


Polansky, A. M. (2011, Fall). STAT 679 (Advanced Statistical Methods), STAT 693 (Graduate Reading in Probability and Statistics), and STAT 775 (Topics in Statistics) as a combined lecture section with separate academic requirements. Statistical Analysis of Networks. Average of 33 students (overall). New course in network analysis which was taught as a topics course. New course.


Other Significant Contributions


**Cooke-Plagwitz, J.** (2011-2013). Vice-president, Northern Illinois Chapter, American Association of Teachers of German. DeKalb, IL.

**Cooke-Plagwitz, J.** (2013). Co-author, the Department of Foreign Languages and Literatures Program Report for the Preparation of Foreign Language Teachers (NCATE). The report resulted in full NCATE recognition for the department. DeKalb, IL.


**Cooke-Plagwitz, J.** (2014). Foreign Language Instructional Technology Graduate Certificate Program—migration from face-to-face to online format. Three of the program’s four key courses are now being delivered in an online format with the fourth due to be converted by its next iteration in the fall of 2015. DeKalb, IL.


**Khoury, H. A.** (2013). Supported the development and approval of the Teacher Leadership endorsement for the Master of Science in Teaching, Middle School Mathematics Education specialization degree. DeKalb, IL.

**Works in Progress**

**Anderson, E. W.** *Robustness and climate change for the University of Chicago’s National Science Foundation*. Applied for $70,000. Application submitted for grant.


**Cooke-Plagwitz, J.** *Narrative games for beginning language learners: How open-ended stories can improve writing skills in elementary language courses*. Manuscript submitted for publication.

**Cooke-Plagwitz, J.,** & Hines, S. C. *Instructional design in higher education: No country for young divas*. Manuscript submitted for publication.


**Erdelyi, B.** *Beam physics and symplectic geometry: Linked for the advancement of accelerator science.* Sponsored by National Science Foundation. Submitted and under review.

**Erdelyi, B., Lindemann, M., & Berz, M.** *Differential algebra based magnetic field computations and accurate fringe field maps.* Manuscript submitted for publication.


**Polansky, A. M., & Chatterjee, A.** *Fitting a piecewise exponential model for the reliability of repairable systems using Bayesian isotonic regression.* Manuscript submitted for publication.

Hagen, T., Horn, J., Odem, A., & Stafstrom, J. *Herbicidal studies with methyl erythritol phosphate (MEP) pathway inhibitors.* Sponsored by the National Science Foundation. Submitted and under review.

Nelson B. J., & Stafstrom, J. P. *Plant DRG1 and DRG2 proteins aggregate in cytosolic granules and co-purify with shHSPs in response to heat stress.* Manuscript submitted for publication.

**Reflections**

**Anderson, E. W.** My sabbatical benefited my research and teaching in a variety of ways. First, my sabbatical gave me time to start a new research program on applying computational methods for high-dimensional robust economies to environmental economics. I was informally a part of the Center for Robust Decision Making on Climate and Energy at the University of Chicago during part of my leave and formed valuable connections for future research and grant applications. My current working paper “Robust Analytical and Computational Explorations of Coupled Economic-Climate Models with Carbon-Climate Response” (joint with William A. Brock, Lars Peter Hansen, and Alan H. Sanstad) provides a novel approach to optimal economic decisions when agents are faced with uncertain climate change. We show that robustness concerns can lead to either a decrease or increase in the optimal carbon tax and energy usage, depending on societal preferences.
Second, my sabbatical gave me time to write an innovative model of optimal financial decision making. My current working paper “Robust Bayesian Portfolio Choices” (joint with Ai-Ru Cheng) arose from work mainly done during my sabbatical. The paper proposes a new Bayesian averaging portfolio choice strategy with excellent out-of-sample performance. Unlike most papers in financial economics which look at only one or two data sets, our paper shows that robust Bayesian choices outperform other leading strategies on a majority of 24 different data sets.

Third, my sabbatical has led to an improvement in teaching quality. Although I did not design any new courses while on sabbatical or substantially revise existing courses; after not teaching for a year, I was able to approach existing courses with a clear mind and a new perspective. I was able to make numerous minor improvements to course materials that increased teaching effectiveness.

Blau, H. I. My spring 2012 sabbatical helped me extend and deepen my knowledge and research skills in algebra and algebraic combinatorics. It enabled me to develop and strengthen connections with mathematicians in Israel, China, Russia, and the United States. It also gave me the opportunity to share pedagogical ideas with mathematics instructors and students from diverse cultures.

Some of my sabbatical research had an immediate payoff, as my project with G. Chen of Central China Normal University resulted in an invitation to participate in a July 2012 workshop at the prestigious Steklov Institute of St. Petersburg. Research and discussions with colleagues in Israel, while not yet developed into completed articles, have informed a number of the ideas that I have suggested to my Ph.D. students over the past two years. The impact of my sabbatical work in China, both in research and in a talk I gave to a general audience on mathematics education in the United States, led to another invitation to visit Wuhan in May 2014. On this recent occasion, Chen and I made significant progress on two new projects, and I had the opportunity to make presentations to, and interact with, two large classes of undergraduate students.

Burchfield, K. B. This sabbatical leave allowed me the opportunity to pursue a new line of research that is related to, and a unique extension of, my interest in urban communities and crime. It also provided me with the time to establish valuable contacts with colleagues, including scholars and practitioners, who are interested in topics related to animal crime and violence. It allowed me the time to continue the community engagement and volunteer work I do with the non-profit organization Safe Humane Chicago, which has provided me several sources of data for my research.

This sabbatical has also provided me with data that will produce several scholarly articles. I anticipate one to two scholarly articles to be produced from the analyses of the Continuing Professional Development animal crime data and at least one article from the analyses of the animal crime court cases. I have developed a new course for the Department of Sociology, Animals and Society. My scholarly publications, along with the pursuit of federally-funded grant opportunities, are an important step toward my promotion to full professor. Further, as my body of work in the field of criminology, urban communities and crime, and animal crime, grows and evolves, I bring recognition to the Department of Sociology, the College of Liberal Arts and Sciences, and Northern Illinois University.

Cassidy, W. P. My spring 2012 sabbatical allowed me to begin work on an extensive project that will survey online and print daily newspaper journalists regarding their perceptions of online newspaper performance and online news credibility. Research in online journalism is a rapidly developing area and because of my sabbatical I was able to closely examine new research in this area, which ultimately will make the project more relevant.
The sabbatical also allowed time for reflection about my research in general. After much thought, I decided to embark on a new area of research in sports journalism. My initial project in this area has appeared in a refereed journal. In addition, I was able to co-author another study that was presented at the leading conference in my field and subsequently published in a refereed journal.

In summary, my sabbatical allowed me to begin a project that will further enhance my reputation as a scholar of significance in online journalism, develop a new area of research and utilize my strengths as a methodologist on a co-authored project. I am tremendously grateful for these opportunities which have also positively impacted my teaching.

Cooke-Plagwitz, J. My sabbatical semester resulted in a number of professional and personal gains. First and foremost, because I am the sort of teacher who spends a good deal of time involved with planning and preparing for each class meeting, not to mention carefully grading course assignments, the sabbatical afforded me the time to concentrate on my research and to make significant progress on my monograph, *Real Education in Virtual Worlds: Foreign Language Learning in 3D Virtual Environments* (working title). Had I not been given a block of time free from teaching responsibilities, I would most certainly not have made the progress I have on the project.

In addition to allowing me to pursue my research interests, the sabbatical permitted me to finalize the migration of three of my instructional technology courses to an online format. A great deal of time is necessary for the preparation of online materials, and the sabbatical afforded me the ideal opportunity to complete that work. I was also able to incorporate changes to my Foreign Language Majors Portfolio Course (FLAL 400), so that the course now includes a career-readiness component in addition to the portfolio creation component.

My students have all benefited from the work I completed during my sabbatical semester. Much of the research I was able to complete over the four months has been incorporated into my German Foreign Language classes, providing the students with a broader and more up-to-date perspective on several pedagogical approaches. Additionally, students of German in the Department of Foreign Languages and Literatures have a new course offering available to them, one which most certainly would not exist had I not had the time to read and re-read the materials I cover in the course. Research on materials for that course have also provided me the impetus to create yet another special topics course for German—and examination into the much darker subject matter of disease and deformity in German literature.

I am sincerely grateful for the opportunity the sabbatical provided me to dedicate myself to my research, to improving my already existing courses, and to develop new ones. I believe that the time I was able to spend on writing, planning, and reflection was truly time well spent.

Deskis, S. E. My main field of research has, for a long time, been Anglo-Saxon (Old English) studies. Within that broad field, I have specialized in proverbs and other forms of wisdom literature. A good part of the work I accomplished during (and immediately following) my sabbatical was on that topic, culminating in a refereed article on the poem *Maxims I*, the most prominent wisdom text in Old English. Being freed from teaching and service responsibilities during the sabbatical meant that I was also able to accept invitations that drew from and built up my international reputation as an expert on early English wisdom literature: for example, I delivered a keynote address at a proverb conference in Canada and another presentation in London.

The opportunity to present my work to a greater number of international and domestic audiences also enhanced my major research project, a monograph on alliterative proverbs as a cultural link between the Old English and Middle English periods. Although I frequently teach Middle English literature on
the undergraduate level, it was imperative that I try out some of my ideas on audiences that included scholars more immersed in Middle English studies. The feedback I received was encouraging. I would not have been able to pursue this topic in any depth had it not been for the extra time I had available to read and absorb relevant books and articles, rather than just “use” them. As a result, not only is my monograph nearly finished, but I will also be able to offer my students the greater depth of knowledge I acquired through my research.

Engel, M., Jr. My sabbatical for the 2011-2012 academic year was an extremely productive one. It afforded me the sustained research time needed to make significant progress on my monograph Commonsense Animal Ethics and the moral epistemology that underlies it. While on sabbatical, I published three articles: (1) “Epistemic Luck,” (2) “Coherentism and the Epistemic Justification of Moral Beliefs,” and (3) “The Commonsense Case against Animal Experimentation,” the latter two of which are also incorporated as stand-alone chapters in Commonsense Animal Ethics. I also completed significant work on an anthology that I am editing entitled Reflections on Animal Rights: New Essays on the Moral Status of Animals. This anthology is now under review at Oxford University Press. I also began work on a new area of animal ethics research focused on fish sentience, fish cognition, and the moral status of fish. I also utilized part of my time off to design a new writing-intensive seminar for philosophy majors [PHIL 301], which I taught for the first time spring 2013.

The research I conducted while on sabbatical leave has continued to bear philosophical fruit. The research I began on fish sentience and cognition while on sabbatical has now resulted in a paper “Fishy Reasoning” that focuses on fish intelligence and the ethics of eating fish. This paper has now been presented at several conferences and will serve as a stand-alone chapter in Commonsense Animal Ethics. Drawing on the research on coherentism that I conducted while writing article (2) above, I was able to complete a new article in which I develop and defend a new form of coherence theory, i.e., “positism,” which provides a unique solution to the epistemic regress problem. This new article is now published in Metaphilosophy. My article on epistemic luck subsequently resulted in an “Author Meets Critics” session at the Tennessee Philosopher’s Association Conference. Since the completion of my sabbatical in August 2012, I have given 21 presentations, all of which grew out of my sabbatical research. The time afforded me during my sabbatical leave was essential to my accomplishing this work. I am indebted to Northern Illinois University for granting me this personally, professionally, and pedagogically enriching leave.

Erdelyi, B. Algorithms, computing, information technologies and the web completely changed and will continue to change the way we live, behave, and conduct our day-to-day business. Its fast paced evolution has made a strong mark on scientific computing in general, and computational physics in particular. Keeping abreast (and indeed, ahead) of all these developments for the purpose of placing my research on a new foundation and advancing my field towards new directions requires concentrated effort, focus and un-fragmented time to think and work. That’s exactly what my sabbatical allowed me to do at a place that is at the worldwide leading edge of these advances, Argonne National Laboratory.

As a direct result of my sabbatical, I learned a lot about high performance computing, published papers, successfully applied for grants, fostered collaborations with world leaders in their respective fields, and placed students on career success. A particular indirect product I am proud of is the completely automated web-based physics colloquium management software system I developed recently using knowledge acquired during and since my sabbatical. In fact, other departments might find it interesting and willing to give it a try.

Frank, M. R. I am thankful for the sabbatical leave granted to me by Northern Illinois University during the spring 2012 semester. The sabbatical allowed me to devote substantially more time to
research, outreach, and course development than I could in a typical semester. Three manuscripts were completed and published in peer-reviewed journals during this time. Additionally, due to the release from teaching and service duties, I was able to spend a significant amount of time at national laboratories learning new techniques and developing new hypotheses. This expanded my number of collaborators to include scientists at the Carnegie Institution of Washington, University of Texas-Austin, Indiana University-South Bend, Argonne National laboratory, and the University of Chicago. With this group of colleagues, I developed a new technique for studying carbon dioxide at high temperatures and pressures. The work was conducted predominantly at the Advanced Photon Source at Argonne National Laboratory and was published as a spotlight paper in American Mineralogist in 2013. The technique has enjoyed widespread acceptance and is now being used by scientists all over the world.

Khoury, H. A. Effective leadership and capacity building are cornerstones for successful organizations, and in particular for academic institutions including universities, K-12 schools, and school districts. A framework linking research and practice is needed to help guide the development of effective leaders in general, and effective mathematics teacher leaders in particular. The development and the implementation process of such a framework is a building-up process and it takes time.

The sabbatical provided valuable time. With this in mind, I am moving forward by merging what I have learned during my sabbatical from my readings in this domain of research and from my networking with other regional and national-level practicing mathematics education leaders. Implementing what I learned about the many faces and types of leadership for the professional development of practicing mathematics educators is important for me. The development of effective and transformational leaders among practicing teachers of mathematics has been a goal of the recent research-based external grants that I have been directing. I look forward to continuing the journey and to documenting and disseminating the various analyses of the collected data and the supportive findings.

Krishtal, I. I consider my 2011-2012 sabbatical experience instrumental to the achievement of my professional goals. Collaborating with Professor Aldroubi of Vanderbilt University resulted in the birth of a new direction in sampling theory. This led to more than 10 publications by the members of the group and a successful collaborative National Science Foundation grant application. The 5-year grant not only provides summer salary and travel funding for the principal investigators but also summer funding for Northern Illinois University graduate students.

The sabbatical leave gave me the time and opportunity to reflect on the progress of my research program as well as determine and focus on its more promising directions. Teaching at Vanderbilt University was beneficial for enhancement of my teaching philosophy and skills.

May, B. T. As I report in the acknowledgements-page of Extravagant Postcolonialism, this crucial sabbatical enabled me to finish a book I had been working on for some years, and the majority of the time it provided I spent on this project. But I also want to mention how the sabbatical provided a much-needed opportunity to begin the daunting process of seeking book-publication at a time (still ongoing) in which university presses were severely curtailing or even eliminating their already much-reduced lists in literary studies. To place a scholarly monograph on a literary topic at a reputable, authentically peer-reviewing press in the 21st-century requires a remarkably painstaking and time-consuming sales-pitch (one that in my case took up an amount of time roughly equivalent to that required by one of the book’s five chapters), and, again, this sabbatical gave me that time—time to work on the pitch as well as the product itself.
Other work completed during the sabbatical included a conference paper that in the following year became a published book-chapter. What was especially helpful about the sabbatical, coming when it did, was that it enabled me to spend an entire week in London and environs studying the English and French Anglophone discourse on ruins and meeting with an international cast of professionals who have addressed and are addressing this issue—and doing so at what I judge to be a high intellectual level. Since the book-chapter on Yeats that came out of this conference, once revised and expanded, will probably serve as the foundational chapter of my next book, the sabbatical deserves credit as supporting the initiation of new work as well as the long-overdue completion of old.

Orcutt, H. K. My sabbatical leave was requested primarily for purposes of updating my competence in complex and evolving statistical strategies that are necessary in order to most effectively analyze and publish on my longitudinal study of adjustment problems following the mass shooting at Northern Illinois University. To that end, I was able to work with group based trajectory modeling and present these data at a conference at the end of my sabbatical semester. Since that time, I have been able to work further on these data, reworking them in growth mixture modeling, and have recently published these data as the lead paper in the *Journal of Traumatic Stress*.

In addition to moving forward on my goals to increase my skills in complex statistical analyses, I spent the initial part of my sabbatical focused on writing a grant proposal that was funded by the National Institute of Mental Health on my initial submission. The primary aim of the project is to utilize translational research methods to examine the association between molecular genetics and post-traumatic stress symptoms using a gene-environment interaction approach. This project has brought a novel fear conditioning paradigm to the Center for the Study of Family Violence and Sexual Assault. My grant project is nearing completion of the data collection phase. We are ahead of schedule with data analyses and have already presented these data at a national conference and have a manuscript completely drafted. During my sabbatical, I also helped move a number of papers with co-authors forward and these additional manuscripts were very helpful in my promotion package for full professor. In sum, my sabbatical semester was a productive semester that resulted in multiple scholarly products.

Polansky, A. M. My sabbatical experience began as I found myself in search of new horizons of research. There were several new fields of development to which statistics was being applied in novel ways and I felt that my previous research experience could provide further developments in many of these fields. Entering new fields of research is a difficult and time consuming process. There is a new scientific language to learn and one must become aware of both the significant developments in the field as well as the fertile open problems. It can easily be overwhelming when one considers the task of becoming familiar both with the history and the current developments of a field. A sabbatical is important in that it provides an environment that is conducive to this type of activity. As such, I was able to concentrate on several new areas of research.

One field that has become crucially important to modern society is the analysis of network graphs. The last decade observed rapid development in this field mostly in Biology, Physics and Computer Science. Experts in Data Science (Statistics) have now entered this field and have begun to contribute major new results. My sabbatical allowed me to concentrate on this field and speak with leading researches. This experience has transformed my research agenda, including a National Science Foundation grant proposal. During my sabbatical I was also able to develop a graduate level course on network analysis which was taught as a graduate level topics course in fall 2011. In another project, I was able to develop a new understanding of Bayesian techniques, with a particular emphasis on spatial variation, industrial, and angular data. This experience allowed me to be a co-principal investigator on another National Science Foundation grant proposal and created several new research topics for my M.S. Thesis and Ph.D. Dissertation students. Without my sabbatical experience it
would not have been possible for me to have the time to absorb the information required to enter these research fields.

**Ross, G.** My semester sabbatical leave contributed significantly to the achievement of my professional and personal goals. Professionally, it allowed me to step away physically from the pressure and responsibilities incumbent with maintaining an active, daily, administrative and teaching schedule, to gain a fresh perspective on the Foreign Language Residence Program after twelve years of service to the university community. During my sabbatical leave, I was able to modernize, from an electronic perspective, the reporting, tracking, and data collection of all participants in the Foreign Language Residence Program dating back to 1976. This information has been transferred from paper to electronic archives available in the Department of Foreign Languages and Literatures and the Northern Illinois University Foundation Office for over a thousand Foreign Language Residence Program alumni. I was also able to write a comprehensive, administrative history of the program from its inception in 1972, and to think conceptually and theoretically about how the Foreign Language Residence Program tracks with Northern Illinois University’s engaged-experience-based approach to learning. This section of the sabbatical report includes both a critical bibliography and personal student assessments.

From a personal standpoint, the sabbatical leave afforded me the opportunity to spend three weeks in Europe (France, Spain, and Portugal) where I was able to re-immers myself in the cultural and linguistic aspects of foreign language acquisition that impact my daily interactions with students and faculty. I am grateful for this opportunity and recognize that without the financial incentive awarded by sabbatical leave, it would have been considerably more difficult. I believe that because of the sabbatical leave, I am a better administrator of the Foreign Language Residence Program, a more informed and effective foreign language educator, and proactive university community member.

**Stafstrom, J.** I spent the fall semester of 2011 at the Department of Biochemistry and Molecular Biology, University of Massachusetts, Amherst. After being at Northern Illinois University for over 20 years, this was my first sabbatical leave. Prior to the sabbatical, research in my lab led to the discovery of a link between DRG proteins, which we had been studying for many years, and the heat shock response, which is vital to cell survival in all living organisms. I went to the University of Massachusetts, Amherst to work with Professor Elizabeth, a leading expert on heat shock proteins and the heat shock response in plants. This research and other ongoing projects in my lab have contributed directly to two manuscripts. Other work from my lab is also being readied for publication. This work has been presented at professional conferences in 2012 and 2013. Much of this success is due to the reinvigoration of my overall research effort during my sabbatical leave.

My sabbatical leave also provided a springboard into new areas of research. While at the University of Massachusetts, Amherst, I met and began collaborating with Professor Magdalena Bezanilla. Dr. Bezanilla’s research involves the moss *Physcomitrella patens*. Over the last few years, this moss has quickly become an important model organism. Such organisms typically have little commercial value, but they are critical for exploring conserved and fundamental processes that occur in all organisms. Since returning to DeKalb, I have refocused my long standing research on DRG genes and proteins in *Arabidopsis* (a model flowering plant) to *Physcomitrella*. Dr. Bezanilla visited Northern Illinois University in March 2014, as a Graduate Colloquium speaker. Dr. Bezanilla and I presented our preliminary results at a conference in 2012. I am pleased that our collaboration is continuing. During the summer of 2013, another new research project was launched. Professor Timothy Hagen from the Department of Chemistry and Biochemistry is an expert on a sequence of biochemical reactions referred to as the methlyerythritol phosphate or MEP pathway. This pathway is critical to the survival of many organisms, including all plants. As such, chemicals that inhibit the key enzymes in this pathway are prime targets for the development of new herbicides. I have become part of this research
team due to my knowledge of plant physiology and biochemical pathways. A grant proposal based on our preliminary work was submitted to the National Science Foundation in 2013.

**Winkler, R.** My sabbatical was a great opportunity to bring various projects to completion, to catch up with recent trends in condensed-matter physics, to explore new directions of research and to realign my scientific activities. My leave consisted of two parts, a visit in fall 2011 to the University of the Basque Country (Bilbao, Spain) and a visit to the University of Regensburg (Regensburg, Germany), both of which provided a very stimulating environment for developing new ideas and discussing them with colleagues.

Novel, strictly two-dimensional materials such as graphene and molybdenum disulfide have recently attracted a great deal of interest due to their unusual electronic properties. The band structure of such materials is readily available via modern electronic-structure calculations. During my sabbatical, I have started a fascinating new project aiming to develop a systematic theory of how such unconventional materials can interact with electric and magnetic fields in novel ways. In the meantime, this project received support through a research grant from the National Science Foundation.
COLLEGE OF VISUAL AND PERFORMING ARTS

Publications

Book


Conference Proceeding


Music Recordings


Public Media

Aymes, R., & Villanueva, R. (2013, August 5). Panorama del jazz [Overview of the Jazz] [Radio Broadcast]. Radio Universidad, UNAM. Mexico City, Mexico.

Presentations


Quinlan-McGrath, M. (2013, April). Influences: Author's lecture and discussion. Invited lectures with discussion on influences at the Newberry Library, Chicago, IL.

Quinlan-McGrath, M. (2013, November). Influences: Author's lecture and discussion. Invited lectures with discussion on influences at the University of Chicago, Chicago, IL.

Quinlan-McGrath, M. (2013, November). Influences: Author's lecture and discussion. Invited lectures with discussion on influences at the University of Wisconsin-Madison, Madison, WI.


Villanueva, R. (2013, December). Improve your time and your time will improve you. Presented at the Midwest Clinic International Band Conference, Chicago, IL.


Villanueva, R. (2014, November). Rodrigo Villanueva drum set master class: Improve your time and your time will improve you. Presentation at the Percussive Art Society International Convention, Indianapolis, IN.

Villanueva, R., Gomez, E., & Karlsson, S. (2014, April). Rhythm section master class with the legendary jazz bassist, Eddie Gomez and his trio. Presentation at the 7th Annual Woody Herman Educational Workshop, Milwaukee, WI.

Wooten, R. (2013, March). The art of conducting. Workshop presented at Savannah State University, Savannah, GA.

Wooten, R. (2013, November). The maestro at work. Workshop presented for Pantrinbago Inc. at the National Steelpan Championships, Pan is Beautiful XII, Port-of-Spain, Trinidad & Tobago.

Grants


Villanueva, R. (2012). Improving Northern Illinois University’s jazz curriculum by creating a digital portable database with audio/video excerpts of significant jazz performances. Sponsored by the Northern Illinois University Committee for the Improvement of Undergraduate Education Grant. Awarded $4,000.


Villanueva, R. (2014). Interviewing and analyzing significant contemporary Brazilian jazz drummers. A comprehensive research about contemporary jazz drumming styles in Brazil. Sponsored by the Northern Illinois University Center for Latino and Latin American Studies Summer Research Grant. Awarded $2,500.

Awards and Honors

Buck, T. (2013, July). Recipient of Association of Medical Illustrators Award of Excellence for Illustrated Book, Salt Lake City, UT.


Villanueva, R. (2012). Recipient of the Outstanding Performance in the Jazz Large Ensemble Undergraduate College Division at the 35th DownBeat Magazine’s Annual Student Music Awards. Northern Illinois University, DeKalb, IL.
Outreach


Villanueva, R. (2012, April). Midwest young artists jazz band master class. Presentation at Midwest Young Artists Center, Highwood, IL.


Villanueva, R. (2014, June). Rodrigo Villanueva drum set master class. Presentation at the Birch Creek Music Performance Center, Egg Harbor, WI.


Villanueva, R., Karlsson, S., & Gomez, E. (2011, September). Rhythm section master class at Jacobs School of Music of Indiana University, Bloomington, IN.

Villanueva, R., Karlsson, S., & Gomez, E. (2011, September). Rhythm section master class. University of Wisconsin at Stevens Point School of Music, Stevens Point, WI.


Wooten, R. (2014, February). A day-long event where I served as adjudicator and clinician for twelve Illinois high school bands with over 500 students. Southwest Suburban Bandmasters Association, Orland Park, IL.

Wooten, R. (2014, April). A day-long event where I served as adjudicator and clinician for Illinois high school bands with approximately 200 students. Lyons Township Music Boosters, Lyons Township, IL.
Curricular Developments


Quinlan-McGrath, M. (2013, Spring). ARTH 701, Art and Visual Psychology: Graduate seminar. Average of eight students. This seminar was based on my sabbatical research in Influences and the work in progress, Alberti and De pictura. Visual psychology, especially the tendencies to use art to influence or to brainwash the viewer, is the central subject of both these book projects. Course redesign.


Wooten, R. (2014, Spring). MUHL 220, Introduction to Music (Black Music History). Average of 23 students. This course was designed specifically for the non-music major and features styles, genres, histories and personalities relative to Black Music History; it has not been taught at Northern Illinois University in approximately twenty years. New course.
Works of Art and Artistic Works

Performances


Exhibits


Illustrations


Other Significant Contributions


Works in Progress


Villanueva, R., Gomez, E., & Karlsson, S. Eddie Gomez trio live at studio 222. DVD Master submitted for publication.


Reflections

Buck, T. The sabbatical accelerated my research exponentially. It allowed uninterrupted time to focus and be more productive in my studio than I could while teaching full time. During my sabbatical I finally was able to finish illustrations for a surgical atlas that I had been working on piecemeal since 2003. Not only was the atlas published, it won an Award of Excellence from the Association of Medical Illustrators at their annual international conference.

During my sabbatical I was asked to create three illustrations to include in a proposal for a new college level psychology textbook, which was being considered as a joint venture between Scientific American and Worth Publishers. The illustration samples I created were accepted and I was brought on as the medical illustrator for the book. This book project, which took up a majority of my studio time in 2013 and consists of 30 of my illustrations, was published in 2014. Having time to create high quality illustrations for the proposal is what allowed me the opportunity for this book project.
My main sabbatical project, creating patient education materials for the health science community, still continues. It has led to information sharing and collaboration with faculty at Iowa State University and the University of Illinois at Chicago, chiropractors as well as independent biomedical visualization studios. It has pushed me into a forward-looking plan that will enable me to take better advantage of digital technologies. I am now learning new software (Osirix and Zbrush) that I will incorporate into my research and classroom. Osirix is a medical data imaging software that constructs 3-D models from CT and MRI scans. Zbrush is a digital 3-D sculpting program that is becoming a powerful tool in contemporary medical illustration and modeling.

Obermeier, J. The intent of my sabbatical leave was to further explore the use of digital fabrication techniques in the creation of art. Specifically, I focused on the uses of 3-D printing, and their relationship to traditional historic processes. The sabbatical result has been a watershed. This has proved to be one of the most informative and productive periods of my career. During dedicated research time, I was able to acquire many new and practical skills.

In practice, this research has opened significant avenues for my artwork. My primary focus has widened to not only include contemporary applications of traditional craft materials, but also that of digital “new media” art. Since this sabbatical, the exhibition and publication of my work has expanded to a new and more diverse audience.

In institutional terms, the time invested by Northern Illinois University has paid great dividends to the School of Art. Digital fabrication is now an interdisciplinary subject regularly taught by me to enthusiastic and appreciative students. Due to this research, we have also created a “Fab Lab,” greatly expanding the creative possibilities of our curriculum. This leave time is greatly responsible for new and contemporary expansions of our school, both in terms of pedagogy and marketing.

Quinlan-McGrath, M. First, I would like to thank all of those who made my sabbatical leave possible. During the sabbatical period I focused on two main projects that would have been impossible to accomplish if I had been teaching and providing service to the university during the academic year 2011-2012. The University of Chicago Press is one of a handful of academic presses that is considered the best in the world, and its final editing procedures are exacting. I spent much of the sabbatical working with the Press to bring my book, Influences, through the final production stages. The publication of Influences in 2013 was well worth those efforts. The book is in 448 academic libraries world-wide, in Asia, Europe, the Americas, Australia and New Zealand, and the Middle East. During 2013-2014, I was invited to speak on the book at several institutions, including Harvard University, the University of Chicago, the University of Wisconsin-Madison, and the Newberry Library, Chicago. In addition, this book has received universally enthusiastic reviews from academic specialists such as Sven Dupre of the Max Planck Institute in Berlin and others cited above. Perhaps equally pleasant for a scholar, the book has also received excellent reviews in popular presses in 2013-2014. The second major project grew out of Influences, in which I pursued research that resulted in the 2012 award from the National Endowment for the Humanities for the academic year 2013-2014.

All of my teaching, from the large survey-lecture classes to the graduate seminars, reflects the interdisciplinary nature of my research. This research and teaching examines the interrelationships of physics, biology, and psychology with artistic understandings of the past and present.

Villanueva, R. The sabbatical offered me a wide range of opportunities for growing and learning, both as a musician and as an educator. The time I spent in New York interviewing historically significant jazz drummers and learning from their teachings opened many doors for me as an artist, educator and scholar. In addition to the learning experience that my research entailed, I was able to
perform and interact with many great jazz musicians in both concerts and jam sessions. During the sabbatical I increased my awareness about jazz musicians, current discography and contemporary drum related bibliography.

I was able to reshape my book project expanding my research to other areas in the United States and beyond. In order to complete my drum set method I needed to document and interview jazz drummers from the West Coast, Brazil, and Cuba. Thanks to my findings during the sabbatical, I have been able to apply for additional grants and expand my research about jazz drummers to have a more well-rounded content for my book in progress Improve Your Time and Your Time Will Improve YOU.

In the summer of 2012 I traveled to California to interview significant jazz drummers from that area. I had the privilege of speaking to influential musicians such as Joe LaBarbera and Peter Erskine. I received a grant that allowed me to travel to Sao Paulo and Rio de Janeiro in the summer of 2014. There I met with 10 famous drummers including Grammy award winner Edu Ribeiro and Hermeto Pascoal's drummers Nene and Marcio Bahia. These opportunities increased my appreciation and knowledge of different cultures and the influence of rhythm to the culture.

My sabbatical allowed the flexibility to work on other artistic and personal endeavors. During the summer of 2011 I was able to finish the production of the first Northern Illinois University Jazz Lab CD Quintessence. This production set the grounds for the Northern Illinois University Jazz Lab Band DVD, Live at the 2014 Illinois Music Education Conference.

The sabbatical allowed me the freedom to tour with the legendary jazz bassist Eddie Gomez in the fall of 2011. Several recording projects and significant tours resulted from this. Notable events include the 2013 Mexico Tour and the 2014 Midwest Tour. I had the once in a lifetime opportunity to record with Eddie Gomez in Frank Caruso's CD Analea. My 2011 sabbatical played a key role in my personal development and professional success. It was a valuable experience that allowed me to grow as a musician, educator and most importantly as a human being.

Wooten, R. This sabbatical gave me the opportunity to do focused research, writing and editing in the area of wind ensemble/concert band repertoire by Black composers. A great deal of the music that has been written is either: (1) lost; (2) in poor physical condition; (3) available but not in a performance-ready edition, or (4) available, but permanently out of print. Also, most of the known music is neglected, and not performed very often by ensembles because of the previously listed reasons. This work informs what I do on the podium as a conductor, because it is not enough to simply know the notes on the page. It is essential for the conductor to have broad knowledge of all aspects about the music s/he is conducting, and to serve as the composer's advocate—especially in the case of composers who are deceased. It is important to be able to place a given musical work in its proper context, and to not separate it from the culture that created it. This results in performances that are less than authentic and/or respectful to the original creators. This work is exciting to me because it affords me the opportunity to receive immediate feedback regarding the works that are performed and to quickly see the impact with live musicians.

The sabbatical afforded me the opportunity to interact with several up-and-coming Black composers, many of whom are eager to compose works for the wind ensemble/concert band medium such as Dwayne Milburn, Gary Powell Nash, and Harvey J. Stokes to name a few. One such composer, Dr. O'Neal Douglas who I met, composed a work entitled Harriet, which depicts the life of Harriet Tubman and the Underground Railroad. This work received its Illinois premiere last spring by the Northern Illinois University Wind Ensemble under my direction. I also did the Northern Illinois University premiere of my edition of William Grant Still's Summerland during the fall 2013 concert season. I am currently in the process of discussing an additional (proposed) volume to the popular...
Teaching Music Through Performance in Band series published by GIA Publications in Chicago. I have been in discussion with their editors regarding a possible new volume entitled: Teaching the Music of Black Composers Through Performance in Band.

It is important to have some sustained time to focus on these neglected and under-performed musical works by several excellent American composers with the hope of reintroducing them into the mainstream repertoire so that the complete history of the uniquely American phenomenon known as the "wind ensemble/concert band" is accurately told. The work that I was able to do on sabbatical not only enhances my professional and personal development, but also allows me to bring an area of research that I am passionate about into the courses that I teach each semester and the music that I am able to bring to various audiences. In my upcoming role as guest conductor in Michigan, Iowa, Rhode Island, Colorado and Kentucky during the 2014-2015 academic year, I am including at least one of these works on each of those programs and will continue to perform them at Northern Illinois University as well. Again, these activities provide publicity for myself, but also indicate to the public at large, that the Northern Illinois University School of Music is a place where creative programming is evident and that it is a place where music of all cultures are both valued and actually taught.