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2011

# 2011 Presentation Abstracts

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## **ACF 2011 January - March Presentations**

**Alverson, Jessica**

January - March FY11

Kennedy Center-American College Theatre Festival

"10 Minute Plays"

I am seeking funds to attend the American College Theatre Festival as a participant in the 10 Minutes Plays. I was chosen out of numerous directors from 4 surrounding states to present my ideas as a director. The ability to do this only comes once in a lifetime to a student. Without this Grant providing me with this opportunity, I will not be able to further my education by theatre professionals. This is my chance to take all of my Grand Valley State University education and put it into application in a constructive environment.

**Bartlett, Rebecca**

January - March FY11

Conference Name: 2011 National Art Education Association (NAEA) National Convention

"Getting Your Student Chapter Involved in Your Local Community"

This session will be presented by student members from the NAEA Student Chapter at Grand Valley State University. The purpose of this session is to communicate and spread awareness in favor of what university students and NAEA Student Members can do in their local communities with art education. This session will present several community art programs they organize and participate in, within the Grand Rapids, Michigan area. These programs include community collaborations with local k-12 schools, by inviting classes to campus for a full day workshop, and the local Gerontology Network, by bringing a printmaking workshop to them. An explanation of how these programs were possible, the knowledge gained through the entire process, and the experiences in their entirety will all be shared.

**Bonczyk, Luke**

January - March FY11

Conference Name: Kennedy Center-American College Theatre Festival

"Irene Ryan Nomination for Playing Jerry in Edward Albee's 'The Zoo Story' "

Started in 1969 by Roger L. Stevens, the Kennedy Center's founding chairman, the Kennedy Center American College Theater (KCACTF) is a national theater program involving 18,000 students from colleges and universities nationwide which has served as a catalyst in improving the quality of college theater in the United States. The KCACTF has grown into a network of more than 600 academic institutions throughout the country, where theater departments and student artists showcase their work and receive outside assessment by KCACTF respondents. Retrieved December 7, 2010, from [http://kcactf.org/KCACTF.ORG\\_NATIONAL/KCACTF.html](http://kcactf.org/KCACTF.ORG_NATIONAL/KCACTF.html)

I was nominated to take place in the above Irene Ryan Acting Scholarship Auditions that are held through the Kennedy Center/ American College Theater Festival. My portrayal of Jerry from Edward Albee's one act play The Zoo Story was recognized and led to my nomination by an approved ACTF judge. I will be taking Lauren Branstetter with me as a partner to help me perform two, two person scenes. I will be presenting a part from Brian Gears one act play A Pretty Row of Pretty Ribbons as well as one scene of Alan Ayckbourn's play Bedroom Farce with Lauren. Additionally I will perform a monologue from Terrence McNally's one act Prelude and Liebestod.

**Braden, Sandra**

January - March FY11

Phi Alpha Theta Michigan Regional Conference

"Passing Obstacles in the Way of Sinai II"

This paper is about the passes in the Sinai. These passes were of

great value to both Egypt and Israel. They were constantly brought up in meetings, negotiations, and ultimately held much leverage during the Sinai (I and II) Accords and Disengagement Agreement of Israeli-Egyptian forces. Israel held onto the passes post 1967 War. Even though these passes were not ultimately that beneficial in practice, they nonetheless were on the platform for the peace talks and negotiations between Egypt and Israel. The passes were a persistent factor that was brought up in talks with Kissinger, Anwar Sadat and Yitzhak Rabin. They appeared in many drafts of the peace treaty between the two countries. Why were these passes thought to be so significant to both countries? Were they in reality that beneficial? Are there historical or psychological factors which triggered such emotions from both leaders? Was it ultimately for ego and power? The passes were one of the factors that almost frustrated the peace treaty.

**Caron, Jessica**

January - March FY11

Science, Poetry and the Photographic Image 48th Society for Photographic Education (SPE)

National Conference

"Portfolio Reviews for my Thesis Project titled Definition: Happiness"

Jessica Caron

My purpose for presenting my work at the conference is to continue to improve my ideas and to gain exposure. I am in need of many portfolio reviews and critiques to develop my piece into a substantial body of photographic work. For the piece Definition: Happiness, my artist statement reads:

Within this series of images, I am exploring a universal question: what is the definition of happiness? I have begun a photographic study on defining this notion by asking people for their personal explanation of happiness. Their attitudes establish the relationship they have created with the world around them, which can be seen in their answers and environments. Using the



individual surroundings of these people as backdrops for my photographs, I am visually illustrating how happiness can be defined.

Through my thesis semester, I discovered this project as my life's work. My long-term goals are to continue to travel and one day publish my images into a book. This body of work is also a great start to help me get into graduate school so I can fulfill another long-term goal of mine, which is teaching.

Not only will portfolio reviews with established artists help improve my work technically and conceptually, but it may spark the interest of my peers in the photography community, helping me achieve my long-term goals.

### **Christian-Rotramel, Zach**

January - March FY11

Michigan Academy of Science, Arts and Letters Conference

"Michigan Inland Lake Water Quality and Surrounding Land Cover Change, 1998 to 2005"

Zach Christian-Rotramel

The purpose of this study was to examine the relationship between land cover change and water quality (transparency), in Michigan inland lakes between the years 1998 and 2005. Water quality data were obtained from the Michigan Clean Water Corps (MiCorps) and processed in Microsoft Excel to display a percent change between the two study years. The lakes studied showed a change ranging between a 21.62% increase to a -26.00% decrease in transparency. Aerial images were obtained from Michigan's DOQQ (Digital Ortho Quarter Quad) image archive, land cover types were digitized in ArcGIS for each lake studied. Each image was classified into six use/cover categories including agriculture, barren land, forest, grass, urban development, and water. A regression analysis was used to determine change in land cover types.

**Christy, Stephanie**

January - March FY11

2011 National Art Education Association (NAEA) National Convention

"Getting Your Student Chapter Involved in Your Local Community"

This session will be presented by student members from the NAEA Student Chapter at Grand Valley State University. The purpose of this session is to communicate and spread awareness in favor of what university students and NAEA Student Members can do in their local communities with art education. This session will present several community art programs they organize and participate in, within the Grand Rapids, Michigan area. These programs include community collaborations with local k-12 schools, by inviting classes to campus for a full day workshop, and the local Gerontology Network, by bringing a printmaking workshop to them. An explanation of how these programs were possible, the knowledge gained through the entire process, and the experiences in their entirety will all be shared.

**Conner, Renae**

January - March FY11

37th Annual Meeting of the Society of Gynecologic Surgeon's (SGS) Scientific Meeting

"Quality of Life Outcomes After 100 da Vinci Robotic Sacrocolpopexy"

Authors: Leah Lillmars; Renae Conner; Beth Wiegand; Theresa Bacon-Baguley, PhD, Samir Hamati, MD

Objectives:

Over the past fifty years the approach to sacrocolpopexy has evolved from an open abdominal, to laparoscopic and finally to a robotic approach. The da Vinci approach has been reported to have less blood loss, shorter length of stay when compared to an abdominal approach (1). Despite these reported benefits, no reported research was found on the quality of life after da Vinci

sacrocolpopexy. The objective of this study was to compare pre-surgical and post-surgical quality of life outcomes pertaining to bladder, bowel and vaginal symptoms after da Vinci sacrocolpopexy.

## Reference

1) Geller, E.J., Siddiqui, N.Y., Wu, J.M., Visco, A.G. 2008. Short-Term Outcomes of Robotic Sacrocolpopexy Compared With Abdominal Sacrocolpopexy. *Obstet & Gynecol* 112(6):1201-1206.

## Materials and Methods

The sample used consisted of 100 patients who had daVinci sacrocolpopexy between October-2007 and March-2010. The subjects were mailed the PFIQ-20 and two versions of the PFIQ-7. One version of the PFIQ-7 was to identify quality of life measures before the surgery. The second version was to identify quality of life measures after the surgery. Two additional questions were included in the mailings. The questions asked: Overall, how do you feel in terms of your prolapse since your surgery? and Would you choose to have the surgery again? In addition, there was a qualitative question that allowed the subject to elaborate on why they would not choose to have the surgery again.

## Results

A total of 57 patients (57%) returned the surveys. The age range at the time of surgery was between 40 and 83 years old. The average BMI was 27.5. Using the Wilcoxon Signed Rank test, a significant decrease in symptoms was found when comparing the pre-surgical summary scores of the PFIQ-7 (mean 58.98) to the post-surgical summary scores (mean 19.88) ( $p < 0.001$ ). The pre-surgical mean bladder symptoms (mean 25.42) showed a significant decrease when compared to the post-surgical bladder symptoms (mean 10.37) ( $p < 0.001$ ). Also, a significant decrease was found between the pre-surgical (12.33) and post-surgical (5.10) bowel symptoms ( $p = 0.007$ ). Lastly, a significant decrease was found between the pre-surgical (21.89) and post-surgical (4.69) vaginal symptoms ( $p < 0.001$ ). The result of the PFIQ-20 identified that 51.8% of the

subjects had no complaints of vaginal prolapse symptoms following surgery, 30.4% had no colorectal symptoms, 26.8% had no urinary complaints. According to the added questions, 96.4% identified that they had improvement or marked improvement after the surgery. No patients reported to be worse or markedly worse after the surgery, and 94.7% reported that they would have the surgery all over again.

## Conclusion

The results of this study show a significant increase in the quality of life (measured by a decrease in symptoms) after da Vinci sacrocolpopexy in all three areas assessed by the PFIQ-7: bladder, bowel and vaginal symptoms, as well as a significant overall improvement. In addition, an overwhelming amount of patients (95%) stated that they would have the surgery again.

## **Costa, Ninive**

January - March FY11

Serving the Profession 24:7-Michigan Society for Clinical Laboratory Science (MSCLS) 2011 Annual Meeting and Exhibits

"Raising Awareness of ABO and Cross-match Discrepancies in Patients with Multiple Myeloma: A Case Study"

Serving the Profession 24:7-Michigan Society for Clinical Laboratory Science (MSCLS) 2011 Annual Meeting and Exhibits

Ninive Costa, James McCauley, Rebecca Salter

The purpose of this study is to raise awareness of discrepancies in ABO typing and cross-matching in patients with multiple myeloma. In transfusion medicine an ABO discrepancy occurs when the forward typing of a blood group is inconsistent with the reverse typing. A cross-match discrepancy occurs when the plasma or serum of a patient is tested and reacts with a prospective donors red cells. Without the ability to correctly identify ABO blood type and rule

out incompatibility, the patient cannot receive a transfusion. The case study being presented demonstrates a multiple myeloma patient whose laboratory results correlate with a cross-match discrepancy. Recognition of such discrepancies can facilitate the effectiveness and efficiency in future laboratory testing of multiple myeloma patients.

**Cullen, Elizabeth**

January - March FY11

North American Saxophone Alliance Region V Conference

"Past the Event Horizon (2008) by GVSU student composer Adam Cuthbert; Shades Saxophone Quartet"

Elizabeth Cullen

By invitation, the senior saxophone quartet from Grand Valley will be performing the world premiere piece, "Past the Event Horizon" (2008), written by Grand Valley student composer, Adam Cuthbert. The premier will be held at the North American Saxophone Alliance Conference Region Five, hosted by the Department of Music at Northeastern Illinois University.

**Dearnley, Kevin**

January - March FY11

Michigan Academy of Science, Arts and Letters Conference

"A Comparative Analysis of Social Movements in the Balkans: Otpor and Vetevendosje"

Contrary to what some research has shown, the emergence of a broad social movement in a country does not always translate into significant political change. A social movement can be organized around measurable goals such as reforming the electoral process, or removing a dictator from power, but size alone does not guarantee success. This paper expands upon the current social movement literature by examining several characteristics of two movements in the

Balkans: Otpor (Resistance) in Serbia and Vet?vendosje (Self-Determination) in Kosovo, in order to show which characteristics of social movements contribute to success. This paper examines the factors that influenced Otpors success and show how Vet?vendosjes differences as a social movement may explain its lack of success thus far. The first factor to be examined is the structure of the respective social movements. The second factor is the action orientation of these social movements. Various tactics that these groups have used will also be examined in conjunction with action orientation. The third factor is the political environment in which the groups operated.

**DeGraaf, Kate**

January - March FY11

John C. Dalton Institute on College Student Values

"Developing Benevolent Purpose through Leadership Learning: Perspectives from Three Diverse Campuses"

Abstract:

Small faith-based campus, mid-size state institution, and a large public football school&what do they have in common? Each of these campuses seek to develop the leadership capacity of students through leadership learning programs. Join this interactive workshop where presenters will dialogue with participants on the alignment of institutional mission and history with the format, design, and impact of leadership programs. Sharing perspectives from Cornerstone University, Grand Valley State University, and Florida State University the presenters will describe and explore the diverse formats of teaching and developing leadership capacity in students based on secular, religious, and/or spiritual campus context.

Rationale:

Exploring three of the Institutes themes: 1) Clarifying why benevolent purpose is important for college students; 2) How does faith encourage the fostering of purpose in life?; and 3) How can

practitioners encourage benevolent purpose among college students? This session is built on the definition of leadership as a meaning-making activity that solves evolutionary, complex problems. Through their experience at three distinctly different collegiate campuses, the presenters will describe the impact of institutional mission and history upon the format and offering of leadership programs. Exploring the conceptual design of leadership programs through Kolbs experiential learning cycle, opportunities and program focus from each campus will be explored in relation to campus mission. Using quantitative program data along with qualitative summaries of diverse student voices, leadership learning experiences from each campus will be compared along the outcomes of HERIs (1996) Social Change Model of Leadership.

As post-industrial leadership philosophies align with individual purpose and meaning making, they can no longer ignore the spiritual journey of the students campus program intend to reach. How this philosophical and programmatic gap is bridged will depend significantly on the campus embrace and acceptance of conversations around spirituality. From a campus deeply rooted in students spiritual growth to one that took two years to form a spiritual life committee, this presentation will engage participants in a conversation of creating mission-based leadership programs in an era when theory and practice align leadership and spiritual development.

**Faber, Amanda**

January - March FY11

Serving the Profession 24:7-Michigan Society for Clinical Laboratory Science (MSCLS) 2011 Annual Meeting and Exhibits

"Refrigerated Stability Study of CBC and WBC Parameters on the Sysmex 2100"

Amanda Faber

The purpose of this study is to determine the effect of refrigeration of blood stored in EDTA tubes on the parameters measured in a complete blood count as well as on the automated differential. Data will be collected on the Sysmex 2100 hematology analyzer at Greenville hospital in Greenville, Michigan. Each blood sample will be tested at zero, 12, 24, 36, 48, 56,

and 72 hours. The parameters being tested are WBC, RBC, HGB, HCT, PLT, RDW, neutrophil %, lymphocyte %, monocyte %, eosinophil %, basophil %, NRBC-WBC, and reticulocytes. Our hypothesis is that the results of the tests will be similar at each time interval. Based on the results of this study, samples taken from patients may be tested for an extended period of time, particularly when doctors would like to add a test to the patient order after the blood has been drawn, thus preventing the need for additional blood draws, resulting in lower costs for the patient and faster reporting of results.

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**Fandrick, Chelsey**

January - March FY11

North American Saxophone Alliance Region V Conference

"Concerto for Saxophone Quartet (1995) by Philip Glass; Saniga Sax Quartet"

Chelsey Fandrick

By professionally reviewed invitation, the Grand Valley State University Hyperbaton Quartet has been selected to perform the Concerto for Saxophone Quartet and Orchestra (1995) by Phillip Glass at the annual North American Saxophone Alliance region five conference at Northeastern Illinois University. The North American Saxophone Alliance is a professional organization of University Professors, public school teachers, students and professional saxophonists. The annual conference for region five is hosted by the Music Department at Northeastern Illinois University. At the conference various masterclasses, sessions, and performances will occur that will aid in the professional development of saxophone students. The quartet we will play is one of the cornerstones of the saxophone repertoire and it is a great honor to get to perform it in front of a group of peers and professional saxophonists.

**Fortenbacher, Charles**

January - March FY11



## Kennedy Center-American College Theatre Festival

### "Irene Ryan Performance Audition Scholarship Competition"

Started in 1969 by Roger L. Stevens, the Kennedy Center's founding chairman, the Kennedy Center American College Theater Festival (KCACTF) is a national theater program involving 18,000 students from colleges and universities nationwide which has served as a catalyst in improving the quality of college theater in the United States. The KCACTF has grown into a network of more than 600 academic institutions throughout the country, where theater departments and student artists showcase their work and receive outside assessment by KCACTF respondents. Through state, regional, and national festivals, KCACTF participants celebrate the creative process, see one another's work, and share experiences and insights within the community of theater artists. The KCACTF honors excellence of overall production and offers student artists individual recognition through awards and scholarships in playwriting, acting, criticism, directing, and design. The KCACTF is a year-round program in eight geographic regions in the United States. Regional activities are coordinated through eight KCACTF regional chairs and eight KCACTF playwriting awards chairs. With funding and administrative support from the Kennedy Center, the regional chair coordinates with the Co-Managers of KCACTF all aspects of the adjudication of productions on the local and regional level and supervises regional-level KCACTF award competitions. The playwriting chair works with schools that have entered new and student-written plays by providing expertise in the development of new scripts assessment specifically designed for a developing playwright and by providing information on the numerous playwriting awards offered. In January and February of each year, regional festivals showcase the finest of each region's entered productions and offer a variety of activities, including workshops, symposia, and regional-level award programs. Regional festival productions are judged by a panel of three judges selected by the Kennedy Center and the KCACTF national committee. These judges in consultation with the Artistic Director select four to six of the best and most diverse regional festival productions to be showcased in the spring at the annual noncompetitive national festival at the Kennedy Center, all expenses paid. Since its inception, KCACTF has given more than 400,000 college theater students the opportunity to have their work critiqued, improve their dramatic skills and receive national recognition for

excellence. More than 16 million theatergoers have attended approximately 10,000 festival productions nationwide.

**Gabrielli, Alexandra**

January - March FY11

241st National Meeting of the American Chemical Society

"Synthesis and Fluorescence Properties of C-6 Modified 2-Deoxynucleosides"

The synthesis of C-6 modified 2-deoxyadenosine and 2-deoxyguanosine is reported. Two synthetic strategies were employed for the introduction of the alkynyl moiety on the C-6 position of 2-deoxynucleosides by Pd-catalyzed cross-coupling methods. The fluorescence properties of these novel alkynylated 2-deoxyadenosine and 2-deoxyguanosine analogs have been determined. The results of our preliminary studies will be presented.

**Galloway, Ana**

January - March FY11

Nonprofit Leadership Alliance (formerly American Humanics) Management/Leadership Institute

"Developing a Gateway of Clean Water: International Service Learning and Water Project"

Learn how Grand Valley State University, American Humanics students fundraised and educated a Tanzania village (Olasiti) on how to build bio-sand water filters and engage villagers, youth and educators in water education.

The goal of the service-learning project was to enhance the learning of the students through direct services to the community and to share skills and knowledge between the students and the Tanzanian community. The students purchased a rainwater catcher for a village in a rural Tanzania, school materials for a local children's orphanage and materials to construct 35 bio-sand filters for area families. The students constructed barrels to hold water, which contained a filter

that is sustainable for up to five years and can produce up to 40 gallons of clean drinking water per day.

**Gibbons, Nicole**

January - March FY11

241st National Meeting of the American Chemical Society

"Chiral silanes by asymmetric substitution at silicon"

We will present progress we have made towards the synthesis of chiral at silicon asymmetric molecules. Chiral silanes have potential as resolving agents, chiral ligands, chiral auxiliaries and in chiral polymers. We have been investigating nucleophilic asymmetric substitution using prochiral dihydro and dialkoxy silanes. Reaction of these with organolithium compounds in the presence of chiral diamines, leads to monosubstitution and chiral silanes in good yields and modest enantiomeric excess. Recently Tomooka, et. al. (1) have reported good enantioselectivity with 2,2-Bis((4-s)-(-)-4-isopropylloxazoline)propane, (BIP) catalyst on cyclic dialkoxy silanes. We will be presenting a comparison of our previous results with sparteine as a catalyst to new results studying BIP as a catalyst. (1) Kazunobu Igawa, Junko Takada, Tomohiro Shimono, and Katsuhiko Tomooka; J. Am. Chem. Soc. 2008, 130, 1613216133, -- Nicole Gibbons

**Gibson, Adrienne**

January - March FY11

Aquatic Science

"Low-Head Dam Removal Causes Immediate Physical Habitat and Water Chemistry Degradation"

Adrienne M. Gibson

This two year study focused on understanding the effects of the removal of

the low head Nashville dam on the Thornapple River in Barry County, MI. A comparison of data taken from pre to post dam removal indicated changes to the physical habitat, as well as water chemistry. In the reach directly below the dam there was a 26 cm average cross-sectional channel aggradation increase in fine sediment from pre- to post-dam conditions, indicating reservoir erosion and subsequent downstream deposition. This was in contrast to relatively minor changes in cross-sectional profile observed throughout the other study reaches, both up and down stream of the former dam. In addition, there still appears to be a turbidity signature directly below the dam in response to increasing discharge. Specifically, at the site directly downstream of the former reservoir, we observed a 0.5 to 1.0-fold elevation in turbidity (NTU) during the rising limb of a flood event above that observed at other measurement locations further down and up stream. Nutrient limiting conditions also changed from pre-and post dam removal. Pre dam removal nutrient levels showed above dam sites to be phosphorus-limiting and the sites below the dam to be nitrogen limiting. This changed after the dam was removed, when all sites appeared to be phosphorus limiting. The most drastic nutrient limiting change occurred directly above the former dam. The pre-dam removal N/P ratio of 22.00 was found reduced to 7.90 after dam removal. Results indicate that conditions 1-year post removal are still degraded, but that these impacts are quite proximate to the former dam site.

**Grebenok, Deborah**

January - March FY11

Michigan Society for Clinical Laboratory Science (MSCLS) 2011-Serving the Profession 24/7

"The Feasibility of Using C&S Preservative Tubes for Routine Urinalysis"

Studies have been performed on the use of preservatives with routine urinalysis. There has been some conflicting data from these experiments on the usability of preservatives with a urinalysis. Our study will provide additional information to whether or not C&S preservatives affect the urinalysis results. We will be using de-identified pre-existing urine specimens. Fifty specimens will be divided into two sets of storage techniques- urine cups without preservative but refrigerated, and C&S preservative tubes at room temperature. The random samples will be run through the urine analyzers, the AX 4280 and the IQ-200, supported by the IRIS software. The

resulting data will help determine if urines in C&S preservatives give comparable results to refrigerated urines. If C&S preservatives can be used in place of refrigerated urines, this will provide a means for hospitals, clinics, and doctor offices to perform a routine urinalysis on specimens sent to them from afar.

**Helakoski, Claire**

January - March FY11

Michigan Academy of Science, Arts and Letters Conference

"Analyzing Atwood: How Structure Defines Character in 'Lady Oracle' and 'Oryx and Crake.'"

Claire Helakoski

An examination of the works of Margaret Atwood shows her belief in wave writing that creates resonances within a piece. In *Oryx and Crake* and *Lady Oracle*, Atwood creates a woven structure of past and present to help these resonances come about. The back and forth construction of her novels show the progression of her writing as well as allow for the strategic filtering of information. The woven structure of these works, the frame-like arrangement of past and present, lends itself to Atwood's wave theory. Through the sources of her works themselves as well as reviews and interviews with Atwood, her structural style and the progression of her writing can be seen. Transitions and connectivity between flashbacks establish Atwood's structural skill in her earlier novel that has a similar, if differing construction in her later work. Both works also contain pasts which slowly reveal themselves; in both cases waves are created by characters in the pasts of the main character of the story. Though another similarity comes through the pre-determined climaxes of each book, *Oryx and Crake* illustrates Atwood's progression through a more compelling construction leading to an unforeseen twist and a double climax.

**Hoag, Lacie Nicole**

January - March FY11

North American Saxophone Alliance Region V Conference

"Concerto for Saxophone Quartet (1995) by Philip Glass; Saniga Sax Quartet"

Lacie Nicole Hoag

By Professional Reviewed invitation, the senior saxophone quartet from Grand Valley State University will be performing the world premiere piece, Past the Event Horizon (2008) written by Grand Valley Student Composer Adam Cuthbert, at the North American Saxophone Alliance Conference Region Five. The North American Saxophone Alliance is an organization of fellow saxophonists. Members include professional performers, university professors, public school teachers, and students of all levels. The annual conference is hosted by the Department of Music at Northeastern Illinois University where a number of performances, lectures, clinics and masterclasses will be presented. It is a great honor for our quartet to be able to participate in this event as we perform a World Premiere piece written by a fellow Grand Valley student

**Hoatlin, Rori**

January - March FY11

Michigan Academy of Science, Arts and Letters Conference

"Modeling the Techniques of Atwood: How to Reveal while Withholding"

Rori Hoatlin

When a reader sets out into the world the imagined space and time constructed by the author of the text of a novel, they place faith that the writer gives them all the necessary tools to properly navigate the text. The moment a reader delves into that world, a contract is established and that contract must be upheld throughout the entirety of the novel. From here the novel can develop in a variety of ways. One way that stories unfold is by what an author chooses to reveal and what the author chooses to withhold often done by way of character interaction. But these moments of

withholding also perform a peculiar act on the text they often entail another writerly technique. That is to say that within the technique of withholding, another technique is often found.

**Junis, Kelly**

January - March FY11

2011 National Art Education Association (NAEA) National Convention

"Getting Your Student Chapter Involved in the Community"

Presented By: Kelly Junis, Stephanie Christy, Mary Powell, and Rebecca Bartlett

This session will be presented by student members from the NAEA Student Chapter at Grand Valley State University. The purpose of this session is to communicate and spread awareness in favor of what university students and NAEA Student Members can do in their local communities with art education. This session will present several community art programs they organize and participate in, within the Grand Rapids, Michigan area. These programs include community collaborations with local k-12 schools, by inviting classes to campus for a full day workshop, and the local Gerontology Network, by bringing a printmaking workshop to them. An explanation of how these programs were possible, the knowledge gained through the entire process, and the experiences in their entirety will all be shared.

**Kassel, Bart**

January - March FY11

Phi Alpha Theta Michigan Regional Conference

"Syrian Intervention in Lebanon"

Bart Kassel

This paper is about the shifting US position regarding Syrian intervention

in the Lebanese Civil War in 1976. After months of opposing Syrian intervention in Lebanon the US Government quickly shifted to supporting an increased Syrian presence. The Lebanese Civil War involved many internal and external forces, threatened regional stability, and complicated the Middle East peace process. The introduction of Syrian forces in Lebanon marked the beginning of nearly thirty years of Syrian presence in the country. US, Israeli, and Syrian interests coincided in response to the potential ascent of radicals in Lebanon. This paper illustrates how these unlikely partners came to an understanding despite their poor relationship.

**Koch, John**

January - March FY11

2011 NASPA (National Association of Student Personnel Administrators) Annual Conference:  
Educating for Lives of Purpose

"Supporting Student Success for Active Military and Veterans"

Most colleges and universities have established a centralized veterans affairs office in order to help veterans and active military students adjust to college life. In the first part of the presentation, Grand Valley State University will describe how they opted for a different approach; a Veterans Network. This Network consists of a number of identified individuals throughout the university embedded in offices that support other students. However, these professionals are trained specifically to work with veterans and active military students and are the contact people that military students are directed to when they request assistance. The members of the Veterans Network meet monthly for updates and training.

The second part of the presentation will focus on GVSU's use of data from a national assessment project that identifies students who may be at risk for academic failure or persistence. We will discuss how we conduct interventions with military and veteran students and how we refer these students to other campus resources.

**Kozachik, Michelle**

January - March FY11



## North American Saxophone Alliance Region V Conference

"Past the Event Horizon (2008) by GVSU student composer Adam Cuthbert; Shades Saxophone Quartet"

Michelle Kozachik

By invitation, the senior saxophone quartet (the Shades Quartet-members are: Michelle Kozachik, Lacie Hoag, Elizabeth Cullen, and Roger Wagner) from Grand Valley State University will be performing the world premiere of Past the Event Horizon (2008) written by Grand Valley student composer, Adam Cuthbert at the prestigious North American Saxophone Alliance Conference Region V Conference. The North American Saxophone Alliance is an organization of fellow saxophonists, including professional performers, university professors, public school teachers, and students of all levels. This conference is hosted by the Department of Music at Northeastern Illinois University where a number of performances, lectures, clinics and master classes will be presented.

### **Maki, Nick**

January - March FY11

Western Canadian Undergraduate Conference of Philosophy 2011

"Beyond Pleasure: Plato and the Good"

Nick Maki

Although Plato is clear that the good is the utmost end of philosophy, he is rather vague when he describes it and the type of life which possession of the good would obtain. In Republic IX, he claims that the philosopher would live the most pleasant life, with true learning being the greatest pleasure. However, exactly what this would look like is unclear, as Plato is often ambiguous in describing such a life. Some have tried to show how the philosopher, once he has acquired knowledge of the good, continually 'relearns' it, and experiences pleasure in this (Delcomminette,

Warren). While this approach works for more mundane pieces of knowledge, careful examination of the nature of the good, and what it means to have possession of the good reveal it to be in a different class. Based on both Plato's account of the nature of the good in Philebus and his 'aviary' model of knowledge in Theaetetus, I argue that, while the philosopher does have the most pleasant life overall, he transcends the need to continually experience the greatest of intellectual pleasures upon completing his knowledge of the good. The nature of the good, when taken with Plato's language of 'grasping' and 'holding' knowledge in the Theaetetus reveals that, once obtained, knowledge of the good is of such a sort that it would never be released from mental grasp, and thus will never be relearned, making the pleasure of learning it a once-only experience.

**McNamara, Matthew**

January - March FY11

Nonprofit Leadership Alliance (formerly American Humanics) Management/Leadership Institute

"Developing a Gateway of Clean Water: International Service Learning and Water Project"

Learn how Grand Valley State University, American Humanics students fundraised and educated a Tanzania village (Olasiti) on how to build bio-sand water filters and engage villagers, youth and educators in water education.

The goal of the service-learning project was to enhance the learning of the students through direct services to the community and to share skills and knowledge between the students and the Tanzanian community. The students purchased a rainwater catcher for a village in a rural Tanzania, school materials for a local children's orphanage and materials to construct 35 bio-sand filters for area families. The students constructed barrels to hold water, which contained a filter that is sustainable for up to five years and can produce up to 40 gallons of clean drinking water per day.

**Moskwa, Krystal**

January - March FY11

## North American Saxophone Alliance Region V Conference

"Concerto for Saxophone Quartet (1995) by Philip Glass; Saniga Sax Quartet"

Krystal Moskwa

By professional reviewed invitation, the Grand Valley State University Hyperbaton Saxophone Quartet has been nominated to perform the Concerto for Saxophone Quartet and Orchestra (1995) by Philip Glass at the North American Saxophone Alliance Conference Region Five. The North American Saxophone Alliance is a professional organization of university professors, public school teachers, professional saxophonists, and students of all levels. The annual conference for region five is hosted by the Music Department at Northeastern Illinois University. At the conference various masterclasses, sessions, and performances will occur that will aid in the professional development of saxophone students. The quartet by Phillip Glass is one of the cornerstones of the saxophone repertoire and it is a great honor to get to perform this in front of a group of peers and professional saxophonists.

### **Narutsch, Erika**

January - March FY11

Serving the Profession 24:7-Michigan Society for Clinical Laboratory Science (MSCLS) 2011 Annual Meeting and Exhibits

"Refrigerated Stability Study of CBC and WBC Parameters"

Erika Narutsch

The purpose of this study is to determine the effect of refrigeration of blood stored in EDTA tubes on the parameters measured in a complete blood count as well as on the automated differential. Data will be collected on the Sysmex 2100 hematology analyzer at Greenville hospital in Greenville, Michigan. Each blood samples will be tested at zero, 12, 24, 36, 48, 56, and 72 hours. The parameters tested on each sample and interval include a red blood cell

count, white blood cell count, hemoglobin, hematocrit, MCV, MCH, MCHC, platelet count, RDW-CV, MPV, neutrophil count, lymphocyte count, monocyte count, eosinophil count, basophil count, neutrophil percent, lymphocyte percent, monocyte percent, eosinophil percent, basophil percent and reticulocyte percent. Our hypothesis is that the results of the tests will be similar at each time interval. Based on the results of this study, samples taken from patients may be tested for an extended period of time, particularly when doctors would like to add a test to the patient order after the blood has been drawn, thus preventing the need for additional blood draws, resulting in lower costs for the patient and faster reporting of results.

**Ni, Sophie**

January - March FY11

Kennedy Center-American College Theatre Festival

"Buried Child"

Sophie Ni

At this conference I will be attending to present two contrasting theatrical scenes, and a comedic monologue to finish. Along with others from my department, I will be bringing a scene partner to perform with me to represent Grand Valley State University. I am hoping that this conference will be an all encompassing learning experience and also a chance for me to explore different levels of performance. Since there will also be a plethora of workshops for me to attend, I also hope to sit in on as many workshops as I can in order to improve and hone my skills as an actor. The opportunity to work and interact with a number of different people from different places is also something that I am looking forward to tapping into. Overall, Im striving to gain as much knowledge and experience as I can.

**Nicholson, Hannah**

January - March FY11

Kennedy Center-American College Theatre Festival

## "Stage Management"

The purpose of the KCACTF Stage Management Fellowship is to provide student stage managers with feedback from professionals working in the field, to give outstanding student stage managers national recognition, and to provide the opportunity for student managers to attend the national festival.

This is a National-eligible award, meaning that one stage manager will be selected at the regional festival to attend the National Festival in Washington DC.

### **Pompey, Branden**

January - March FY11

Kennedy Center-American College Theatre Festival

## "Sound Design"

The purpose of the KCACTF Award for Sound Design Excellence is to provide student designers with feedback from professionals working in the field; to give outstanding student designers national recognition; and to provide the opportunity for student designers to attend the national festival at the Kennedy Center. The KCACTF Sound Design award is focused on the ideas behind, and approach to, a design that supports a production, and not on the equipment in the original venue. The KCACTF Sound Design award is National-eligible, meaning the participants may be selected to advance to the National KCACTF Festival in April.

### **Quandt, Heather**

January - March FY11

Nonprofit Leadership Alliance (formerly American Humanics) Management/Leadership Institute

## "Why Nonprofit?"

Heather Quandt

Story of how I became interested in nonprofit work, why I am passionate about the sector, and my ambitions for the future. Highlights my volunteer/coordinating experience at GVSU and my community development internship in South Africa.

**Saniga, Bradley**

January - March FY11

North American Saxophone Alliance Region V Conference

"Concerto for Saxophone Quartet (1995) by Philip Glass; Saniga Sax Quartet"

Bradley Saniga

Through professional reviewed invitation, the Hyperbaton Saxophone Quartet from Grand Valley State University will be performing the Saxophone Quartet Concerto by Philip Glass at the North American Saxophone Alliance (NASA) Region 5 Conference. NASA is an organization of fellow saxophonists including professional performers, university professors, public school teachers, and students of all levels.

**Sarns, Justin**

January - March FY11

North American Saxophone Alliance Region V Conference

"Concerto for Saxophone Quartet (1995) by Philip Glass; Saniga Sax Quartet"

Justin Sarns

By professional reviewed invitation the Grand Valley State University Hyperbaton Quartet has been selected to perform the Concerto for Saxophone Quartet and Orchestra (1995) by Phillip Glass at the annual North American Saxophone Alliance region five conference at Northeastern Illinois University. The North American Saxophone Alliance is a professional organization of

University Professors, public school teachers, students, and professional saxophonists. The annual conference for region five is hosted by the Music Department at Northeastern Illinois University. At the conference various masterclasses, sessions, and performances will occur that will aid in the professional development of saxophone students. The quartet by Phillip Glass is one of the cornerstones of the saxophone repertoire and it is a great honor to get to perform this in front of a group of peers and professional saxophonists.

**Scholten, Erik**

January - March FY11

Nonprofit Leadership Alliance (formerly American Humanics) Management/Leadership Institute

"Developing a Gateway of Clean Water: International Service Learning and Water Project"

Learn how Grand Valley State University, American

Humanics students fundraised and educated a Tanzania village (Olasiti) on how to build bio-sand water filters and engage villagers, youth and educators in water education. The goal of the service-learning project was to enhance the learning of the students through direct services to the community and to share skills and knowledge between the students and the Tanzanian community. The students purchased a rainwater catcher for a village in a rural Tanzania, school materials for a local children's orphanage and materials to construct 35 bio-sand filters for area families. The students constructed barrels to hold water, which contained a filter that is sustainable for up to five years and can produce up to 40 gallons of clean drinking water per day.

**Tavalire, Hannah**

January - March FY11

Northeast Aquatic Plant Management Society (NEAPMS) 2011

"Implications of genetics and environment for management: are certain lineages of variable leaf watermilfoil more apt to grow invasively? "

In recent years, it has been suggested that aquatic invasive species may harbor ecologically distinct biotypes, and that such biotypes may have different impacts, potential for spread, or response to management. Yet, very few studies have been done to compare the ecologies of distinct biotypes. Genetic studies of *Myriophyllum heterophyllum* (variable-leaf watermilfoil, VLM) - an invasive aquatic plant throughout New England - have identified distinct genetic lineages that have independently invaded the northeastern US from different geographic origins. However, it is not known whether these distinct lineages differ in their ecology, an area where knowledge could greatly impact the design of management regimes. We compared the growth habits of the three most common introduced genotypes of VLM in New England. We compared plant size, several morphological measures, bed densities, and bed area in an observational study across 21 lakes. We also grew the three genotypes in a common garden under a variety of environmental conditions to assess the genetic basis of differences in growth forms. Ongoing analyses suggest significant differences in growth form and pattern across both studies. This study therefore demonstrates the utility of using genetic screens to identify and compare the ecology and management of distinct biotypes. For example, the ecological differences revealed in this study can be incorporated into models for the spread and impact of different biotypes. In addition, our study suggests that studies of management efficacy should explicitly incorporate the diversity of introduced genotypes, as ecologically distinct biotypes are likely to differ in their levels of tolerance for different management regimes.

**Wiegand, Beth**

January - March FY11

37th Annual Meeting of the Society of Gynecologic Surgeon's (SGS) Scientific Meeting

"Quality of Life Outcomes following daVinci Robotic Sacrocolpopexy"

Objectives: Over the past fifty years the approach to sacrocolpopexy has evolved from an open abdominal, to laparoscopic and finally to a robotic approach. The da Vinci approach has been reported to have less blood loss, shorter length of stay when compared to an abdominal approach (1). Despite these reported benefits, no reported research was found on the quality of life after da Vinci sacrocolpopexy. The objective of this study was to compare pre-surgical and post-surgical



quality of life outcomes pertaining to bladder, bowel and vaginal symptoms after da Vinci sacrocolpopexy.

**Materials and Methods:** The sample used consisted of 100 patients who had daVinci sacrocolpopexy between October- 2007 and March-2010. The subjects were mailed the PFIQ-20 and two versions of the PFIQ-7. One version of the PFIQ-7 was to identify quality of life measures before the surgery. The second version was to identify quality of life measures after the surgery. Two additional questions were included in the mailings. The questions asked: Overall, how do you feel in terms of your prolapse since your surgery? and Would you choose to have the surgery again? In addition, there was a qualitative question that allowed the subject to elaborate on why they would not choose to have the surgery again.

**Results:** A total of 57 patients (57%) returned the surveys. The age range at the time of surgery was between 40 and 83 years old. The average BMI was 27.5. Using the Wilcoxon Signed Rank test, a significant decrease in symptoms was found when comparing the pre-surgical summary scores of the PFIQ-7 (mean 58.98) to the post-surgical summary scores (mean 19.88) ( $p < .001$ ). The pre-surgical mean bladder symptoms (mean 25.42) showed a significant decrease when compared to the post-surgical bladder symptoms (mean 10.37) ( $p < .001$ ). Also, a significant decrease was found between the pre-surgical (12.33) and post-surgical (5.10) bowel symptoms ( $p = .007$ ). Lastly, a significant decrease was found between the pre-surgical (21.89) and post-surgical (4.69) vaginal symptoms ( $p < .001$ ). The result of the PFIQ-20 identified that 51.8% of the subjects had no complaints of vaginal prolapse symptoms following surgery, 30.4% had no colorectal symptoms, 26.8% had no urinary complaints. According to the added questions, 96.4% identified that they had improvement or marked improvement after the surgery. No patients reported to be worse or markedly worse after the surgery, and 94.7% reported that they would have the surgery all over again.

**Conclusion:** The results of this study show a significant increase in the quality of life (measured by a decrease in symptoms) after da Vinci sacrocolpopexy in all three areas assessed by the PFIQ-7: bladder, bowel and vaginal symptoms, as well as a significant overall improvement. In

addition, an overwhelming amount of patients (95%) stated that they would have the surgery again.

**Wondergem, Taylor**

January - March FY11

Society for Research in Child Development Biennial Meeting

"When do Boys Start Smiling Less than Girls? A Yearbook Photographs Analysis"

Previous research has demonstrated that women smile more frequently and more broadly than men. However, little research has focused specifically on the age at which this gender difference first emerges, as well as differences between African Americans and European Americans. This study attempts to identify the age at which gender differences in smiling emerge among European American and African American children, as well as, identifies differences in smiling between African American and European American. Yearbook photographs ranging from kindergarten through high school were examined. Results suggest that a significant gender difference in smiling emerges in fourth grade. In addition, differences in smiling were found to be greater between African American males and females than between European American males and females.

**ACF 2011 April – June Presentations**

**Beachum, Lauren**

April – June FY11

Annual Meeting of the Midwestern Psychological Association

"Emotion Socialization Strategies: A Comparison between Caucasian and Hispanic Mothers"

Lauren Beachum, Charalene Kiser, Megan Drahos, & Wolfgang Friedlmeier

Introduction

Evidence of cross-cultural differences in emotion socialization suggests that cultural norms influence parenting strategies. This study compares Caucasian and Hispanic-American mothers of 2-year-old children to evaluate variations in emotion socialization strategies as a function of ethnicity. American culture values individualism, and parenting strategies are often problem-focused responses directed towards the cause of the child's distress (Fabes et al., 2002), which fit the model of individualistic emotion competence. In contrast, the importance of interpersonal relationships in Hispanic cultures (Romero, Cuéllar, & Roberts, 2000) predicts that Hispanic-American mothers would be more likely to discuss emotional expressions with their children in order to facilitate relational emotional competence, i.e., adapting the emotional responses to the context.

## Methods

N = 60 mothers of 2-year-old children living in West Michigan were interviewed for this study as a part of a broader research project. The CCNES (Fabes et al., 2002) was adapted into an interview and the vignettes were modified to include a wider range of emotions and adjusted to accommodate younger children. Responses were coded by three independent raters, and statistical analyses include log-linear modeling and MANOVAs.

## Results

Preliminary results demonstrate differences in emotion socialization strategies between Caucasian- and Hispanic-American mothers. Caucasian mothers were more likely to use action-based strategies directed toward the child's behavior, whereas Hispanic-American mothers were more likely to respond to the child's emotion and use strategies involving discussion.

## Conclusions

The preliminary results demonstrate a global difference in emphasis between the two groups in their socialization strategies across emotions, reflecting the emphasis on independence or interdependence within their respective cultures. Caucasian-American mothers tended to react to

children's behaviors using actions while Hispanic-American mothers tended to react to children's emotions using discussion. These results have significant implications. The ways children learn to regulate their emotions can influence their social competence later on (Fabes et al., 2002). This is particularly important for children from minority groups who experience conflicts between cultural values, and whose behaviors might be misunderstood by teachers and peers. Future research addressing these issues and their effects is required.

## References

Fabes, R. A., Poulin, R. E., Eisenberg, N., & Madden-Derdich, D. A. (2002). The coping with children's negative emotions scale (CCNES): Psychometric properties and relations with children's emotional competence. *Marriage & Family Review*, 34, 285-310.

Romero, A., Cuéllar, I., & Roberts, R. (2000). Ethnocultural variables and attitudes toward cultural socialization of children. *Journal of Community Psychology*, 28, 79-89.

## Short Abstract

This study compares emotion socialization strategies of Caucasian-American and Hispanic-American mothers of 2-year-old children to determine whether they vary as a function of ethnicity. N = 60 mothers living in West Michigan were interviewed. Results indicated cultural differences which corresponded to differing cultural values.

## **Butler, Katherine**

April – June FY11

Women's Health 2011: The 19th Annual Congress

"Does Gender Still Matter? Women Physicians' Self-Reported Medical Education Experiences"

Katherine Butler

## Introduction:

In response to previous research, many medical schools have developed programs to recruit women, which has led to a substantial increase in women attending U.S. medical schools. However, simply increasing participation has not eliminated gender bias in either the curriculum or the treatment of women medical students. Through an in-depth analysis of self-reported experiences of women physicians, this research identifies areas for improving medical education in order to increase the delivery of quality health care for women.

## Methods:

Semi-structured interviews were conducted with 25 practicing women physicians from multiple specialties. Topics included women's health curriculum, preparedness for interaction with female patients, harassment and discrimination, mentorship, and overall experiences. Responses were coded into thematic categories including gender role assumptions, marginalities in women's health, medical hierarchy, and mentorship programs.

## Results:

Societal gender role assumptions significantly impact women physicians' experiences as medical students, in practice, and as primary care givers. Marginalities in women's health education exist in all levels of medical training. Curriculum specific to reproductive and psychiatric women's health impacts physicians' preparedness for treating female patients. Physicians reported the existence of a medical hierarchy during training and in practice. Eight physicians reported having experienced or witnessed sexual harassment during their medical training. Despite the prevalence of mentorship programs, random assignment of mentors and students detracted from the meaningfulness of such programs.

## Conclusions:

The construction of gender impacts multiple levels of medical culture including undergraduate and graduate curricula, delivery of health care, and womens overall advancement in the field. Despite these findings, the majority of the women physicians participating in this study spoke very highly of their medical training and recognized that progress has been made. Greater support from medical institutions and education programs to establish gender equitable environments will ensure diverse opportunities for women in the field as well as comprehensive womens medical care.

**Carrigan, Jenna**

April – June FY11

Teaching Public Administration Conference

"AmeriCorps: Love It or Lose It"

Jenna Carrigan

This paper focuses on the extraordinary impact of the national service program, AmeriCorps. By exploring the rich history of government subsidized initiatives, we are able to recognize that the integration of AmeriCorps has substantially improved issues in social justice, increased environmental sustainability and has positively impacted market systems in the United States(Perry, Thompson, Tschirhart, Mesch, & Lee, 1999). Additionally, the session will highlight the history of service in the United States, the importance of the government funded initiatives, and the role they play in the teaching of volunteerism.

President George Bush declared nearly 20 years ago that volunteering is something close to a patriotic obligation to serve America(Wofford, 2002). In the spirit of nationalism, civic engagement began in the period of the founding fathers; the American people desired a sense of community and naturally, service to others was the foundation in achieving this unity. Poverty, hunger, and homelessness are just a sample of the many hardships facing Americans today. With this in mind, President Clinton created a domestic service organization in 1991 called AmeriCorps, which has become the foundation for lifelong service initiatives in

America(Wofford, 2002). By learning and teaching the history of service initiatives in America, it easier to understand both the need and significance of government funded service programs.

Just as the history of volunteerism is rich, the impact of AmeriCorps is unbounded. Since its initiation, an estimated 500,000 members have served their country and had an economic impact of two billion dollars (AmeriCorps, 2011). [M2] The lifelong effects on AmeriCorps members are exceptional as they experience heightened leadership skills, an awareness of social and environmental issues in America, and a general sense of optimism for the future (Briggs & Peterson 2010). By creating awareness of AmeriCorps and other service initiatives in the classroom, students learn the importance of civic engagement and are able to apply classroom knowledge to real word situations.

Service programs act as a teaching tool for students as it provides opportunity for connections outside the classroom to the greater world at hand; it does so while allowing for collaboration between Americans from diverse backgrounds to accomplish a collective outcome. Additionally, it brings classroom curriculum alive by placing students in capacities that encourage continued education to combat the social and environmental issues they embrace during their year of committed service work.

Times are tough, yet volunteer rates continue to soar and are at an all-time high. Higher education is placing an emphasis on active citizenship with various service programs, children are beginning to volunteer at a young age, and opportunities for civic engagement are limitless. The initiation of AmeriCorps has undoubtedly begun an ambitious movement in the United States. The future of volunteerism is bright, and service initiatives will continue to be an irreplaceable teaching aid for students and citizens alike. Blaisdell, E. (2011, February 27). Bill could cut AmeriCorps funding . Cumberland Time-News, p. 1. Briggs, E, & Peterson, M. (2010). Toward a better understanding of volunteering for nonprofit organizations: explaining volunteers' pro-social attitudes. *Journal of Macromarketing*, 1(30), 61-76. Harkavy, Ira. (2006). The role of universities in advancing justice in the 21st century. *ECSJ*, 1(1), 5-37.

Perry, J.L., Thompson, A.M., Tschirhart, M., Mesch, D., & Lee, G. (1999). Inside a swiss army knife: an assessment of AmeriCorps. *Journal of Public Administration Research and Theory*, 9(2), 225-250.

Wofford, Harris. (2002). The politics of service: how a nation got behind AmeriCorps. *The Brookings Review*, 20(4), 14-17.

## **Coleman, Doug**

April – June FY11

Butler University Undergraduate Research Conference

"Mechanical Foundations of Irreversibility in Nonequilibrium Statistical Mechanics"

Doug Coleman

Coffee creamer is readily seen to diffuse into coffee, but once mixed, is never observed to separate back. The second law of thermodynamics describes this nonreversible event by stating that a closed system not in equilibrium will evolve until it approaches its maximum value of entropy in which case the system has reached equilibrium and its macrostate will not change. Because it is known that coffee, creamer, and all other matter is composed of elementary particles whose interactions have been shown (in part) to be calculable (at least within a statistical framework), the question can be posed whether the second law of thermodynamics is a fundamental physical law, or if it can be derived from first principles of mechanics, or perhaps with something else such as statistics. Specifically interesting is that the microscopic dynamical equations thought to govern all macroscopic systems constituents are time symmetric, implying that the reversed time evolution of any process should also be physically possible. This presentation will analyze the works of Boltzmann, Gibbs, and others who have sought to derive or qualify the second law of thermodynamics in terms of the underlying time reversible microscopic dynamics. A personally developed numerical simulation will be exhibited to illustrate the foundations and paradoxes of Boltzmann's H-theorem, and the presentation will attempt to distill the literature regarding the pursuits of nonequilibrium statistical mechanics to describe entropy increase of irreversible macroscopic phenomena.



**Delgado, Christopher**

April – June FY11

36th Annual Conference of the International Trumpet Guild

"GVSU Trumpet Ensemble"

The GVSU trumpet ensemble is a nationally acclaimed musical group. Under the direction of Professor Richard Stoelzel, the group received top place multiple times at the National Trumpet Competition in Fairfax, VA. After a pre-screened audition, the ensemble was invited to perform at the 36th annual International Trumpet Guild conference. The ensemble will perform with Jeff Uban, a former member of the Glenn Miller Jazz Orchestra and an alumni of GVSU. In attending this conference, the GVSU trumpet ensemble will be performing for an international audience of aspiring, world class musicians.

**Dila, Deborah**

April – June FY11

54th International Conference on Great Lakes Research

"Microbes and Carbon Flux in a Great Lakes Watershed"

DILA, D.K.1 and BIDDANDA, B.A.1, 1GVSU Annis Water Resources Institute, Muskegon, MI; 2GVSU Annis Water Resources Institute, Muskegon, MI. Microbes and Carbon Flux in a Great Lakes Watershed.

Microorganisms make up the majority of Earth's biological diversity and biomass. They are responsible for cycling roughly half of carbon and oxygen between the atmosphere, hydrosphere and lithosphere. In marine and freshwater environments microbial plankton are the leading primary producers as well as consumers of organic carbon. Although many details of the relationship of microbes to carbon flux remain a mystery, we do know that freshwater ecosystems are highly reactive sites of carbon metabolism and land-margin coastal

ecosystems are emerging as key hotspots in the global carbon cycle. Our work examined seasonal changes in carbon flux and microbial community composition along a land to lake gradient in a major West Michigan watershed. From carbon-rich riverine waters to nutrient poor pelagic lake waters, sampling sites included Cedar Creek, Muskegon River, Muskegon Lake and offshore Lake Michigan. Maxima in net primary production occurred in Muskegon Lake (~30-fold higher than Muskegon River and 240-fold higher than Lake Michigan) coincident with maxima in Chlorophyll a concentration and minima in nitrate concentration at this drowned river mouth site. Our findings suggest Muskegon Lake is a highly productive estuary-like transition zone in this Great Lakes watershed.

**Dombrowski, John**

April – June FY11

Ohio Northern University Undergraduate Conference

"Bonjours Solution to the Sellars Problem"

This paper explores Laurence Bonjour's solution to the dilemma that the Sellars Problem presents for internalist foundationalist accounts of epistemic justification. The dilemma arises because internalist foundationalism maintains that the believer must be aware of the reason that supports their basic belief. This required awareness presents a dilemma because either the awareness is a separate judgment in need of further justification and therefore the belief that it supports cannot be basic or the awareness is not a judgment and fails to provide a sufficient reason to support the basic belief because it lacks the required content. Bonjour attempts to solve the dilemma by demonstrating that the supporting reason for basic beliefs about sensory experience do not require a separate judgment for the believer to be aware of them and that this awareness, even though it is not a judgment, is still efficacious with respect to playing a justifying role for basic beliefs. After presenting Bonjour's solution to the dilemma, I consider a case against his solution offered by Michael Bergmann. Bergmann attempts to show that Bonjour ultimately does not escape the need for a separate judgment in his account of epistemic justification and thereby does not adequately solve the Sellars Problem. Last, I offer a response to Bergmann that slightly modifies Bonjour's position that undermines Bergmann's argument against Bonjour's solution. I do

this by showing that the separate judgment that Bergmann claims Bonjour needs for justification is actually found in the judgment of the belief itself and thereby is not a separate judgment or in need of justification.

**Figel, Suzanne**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Praise Influences Childrens Attention to Errors Developmental"

The type of praise children receive influences their motivation after failure. Generic praise (e.g., you are good at that) is related to learning goals while non-generic praise (e.g., you did a good job at that) is related to performance goals. A child who receives generic praise is less likely to persist on a task after failure, while a child who receives non-generic praise is more likely to persist after failure. While many studies have examined the influence of different praise types, little is understood on why failure is so prominent among children who receive generic praise.

While many studies have used verbal response as a measure of praise, the present study used eye tracking as a nonverbal measure to examine how the type of praise changes children's reaction to failure. Specifically, eye tracking may help explain why children persist less after given generic praise by examining how praise influences children's attention to errors.

Thirteen children ages 4-7 received generic or non-praise. Children were shown four pictures (said to be drawn by other children) that were used as a pre and post test measure of attention to errors (i.e., missing parts). Children were then told to imagine making four drawings of their own. Those four drawings received either generic or non-generic praise; the pictures were shown on the computer screen. Next, children were told two stories about drawings that contained errors. Eye movements were recorded for each drawing and questions pertaining to motivation and self-evaluation were asked.

Children who received generic praise (M=0.13, SD=.14) had significant lower persistence as compared to children who had received non-generic praise (M=1.0, SD=.00 ; t (11)= -17.04, p<.001). Eye fixations were measured by comparing the mean fixations of missing elements by praise conditions. During the error trial, children who received generic praise (M = 18.5, SD = 4.32) had more eye fixations on the missing parts than those given non-generic praise (M = 8.71, SD = 3.82; t (11) = 4.34, p < .01; Figure 1). Also, children who received generic praise (M = 8.17, SD = 1.47) had more eye fixations on the post-test pictures compared to the non-generic praised children (M = 3.71, SD = 2.36; t (11) = 4.0, p < .01; Figure 2). This shows that generic praise increases attention to errors on their own drawings as well as those drawn by other children significantly more than non-generic praise.

Figure 1 Means and Standard Deviations for Verbal and Non-Verbal Persistence Measures

Mean SD T value Significance

Post-error persistence Generic .13 .14 -17.04 .001 Non-Generic 1.0 .00 Number of post-error fixations Generic 18.5 4.32 4.0 .001 Non-Generic 8.71 3.82 Number of post-test fixations Generic 8.17 1.47 4.0 .001 Non-Generic 3.71 2.36

**Foreman, Kathrin**

April – June FY11

2011 National Association of Social Workers Conference

"D-5 Using Research to Inform Practice with Diverse Refugees Groups"

Muthoni Imungi, PhD, LMSW, Katherin Foreman, BSW Student, Rebecca Kenderes, BSW Student Refugees face enormous challenges upon arrival in the United States. To support their acculturation and adjustment, they are eligible for a range of human services. Consequently, social workers may find that they are providing services to this vulnerable population. This lecture will familiarize social workers with findings from research studies involving refugee

children, adolescents, families and older adults. Findings from the studies can be used to inform practice with refugees.

**Golder, Jennifer**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Looking for differences in data: Adults data comparison strategies"

Jennifer Golder

Comparing sets of numbers is a critical skill in mathematics, science, and everyday life. Although scientists use statistics to compare number sets formally, informal comparisons are quite common, in considering prices, sports performance, and grades. It is possible that individuals possess intuitive strategies for number set comparison in which sets are represented as summary values with approximations of means and variance. We investigated how college-aged individuals assessed number sets by examining how the properties of the data sets (e.g., mean differences and variance) influence accuracy and confidence in differences. Finally, we used these measures to evaluate participants data comparison strategies.

**Subjects.** Subjects were 30 Psychology students at Grand Valley State University.

**Materials.** Each subject saw 127 data set pairs with the following properties: (a) set size 2, 4, 6 or 8, (b) ratio of means of either 4:5 or 9:10, and (c) variance 10% or 20% of the mean.

**Procedure.** Subjects were presented a series of data sets on a computer. Participants were asked to determine which of two golfers (LEFT or RIGHT side) hit the ball farther (accuracy) and their reaction times were recorded (milliseconds). After completing the computer tasks, subjects were asked to evaluate the strategies they used to solve the sets.

Results and Discussion. As mean ratios decreased and variance increased, accuracy and confidence decreased as indicated through number correct, suggesting that the statistical properties of the sets influenced comparisons (see Figure 1). When the mean ratio was larger, participants responded more quickly than when it was smaller  $F(1, 30) = 19.15, p < .001$ . When the coefficient of variation was smaller, participants responded more quickly than when it was larger  $F(1, 30) = 23.95, p < .001$ . And participants took longer to respond with each increase in sample size  $F(3, 28) = 9.54, p < .001$ . Subjects were also more accurate when mean ratio was larger, and when variance and sample size was smaller ( $F(3, 28) = 2.05, p < .001$ ).

Discussion. These results suggest that participants detected the differences between data sets based on the statistical properties of the sets. The results clearly demonstrated an effect of means, variance, and sample size. More specifically, as mean differences increase and variance decreased, reaction times decreased and accuracy increased. The results suggest that subjects detect differences by creating approximate values that include means and variance.

### **Gomez, Jamie**

April – June FY11

American Association of Physical Anthropologists 80th Annual Meeting

"Does practice make perfect? A test of the effect of experience on age-at-death estimation using Transition Analysis"

JAMIE M. GOMEZ and BRIDGET F. B. ALGEE-HEWITT

The estimation of age-at-death with some degree of statistical certainty is a key component of any osteological analysis that seeks to extract biological information from an individual or reveal the demographic structure of a skeletal population. Transition Analysis (TA) has emerged as a valuable statistical tool for obtaining robust age estimates that circumvents many of the statistical problems that plague other, traditional, methods. Moreover, the multiple-trait, component scoring approach associated with TA (Boldsen et al. 2002) is known to be a promising alternative to the single indicator methods when dealing with unknown, incomplete, and

fragmentary cases. For these reasons, we believe that the TA approach merits more refined testing. This project evaluates the effect of education and experience on the age estimates obtained. We are concerned, specifically, with the ease of learning and repeatability when TA is applied by a practitioner who is familiar with age estimation theory but has minimal TA experience. We pose the following questions: (1) how interpretable are the criteria? (2) are some components more difficult to score than others? (3) how repeatable, and, so, reliable are the age estimates produced? (4) do TA scores, and, in turn, age estimates improve with practice? (5) are the patterns of intraobserver error and repeatability consistent between male and female specimens? Data for this study was collected on the Suchey-Brooks pubic symphysis casts: specimens were assigned unbiased identifiers, selected at random and repeatedly "blind"-scored over a two month period. Special attention was paid to the date and conditions of the analysis in order to detect patterned results and tests of intraobserver variation were conducted. Pedagogical and practical-use recommendations are provided.

**Hardaker, Paul**

April – June FY11

36th Annual Conference of the International Trumpet Guild

"Trumpet Preludes"

Paul Hardaker

The GVSU trumpet ensemble is a nationally acclaimed musical group. Under the direction of Professor Richard Stoelzel, the group received top place multiple times at the National Trumpet Competition in Fairfax, VA. After a pre-screened audition, the ensemble was invited to perform at the 36th annual International Trumpet Guild conference. The ensemble will perform with Jeff Uban, a former member of the Glenn Miller Jazz Orchestra and an alumni of GVSU. In attending this conference, the GVSU trumpet ensemble will be performing for an international audience of aspiring, world class musicians.

**Hunsinger, Miles**

April – June FY11

American Association of Geographers (AAG) Annual Meeting

"Effect of Center Line Rumble Strips on Head-on and Sideswipe Automobile Collisions in Michigan, 2004 to 2009"

Miles Hunsinger

In 2008 Michigan Department Transportation began a project to mill 5,700 miles of center line rumble strips on selected Michigan Trunk lines at a total cost of approximately \$8 million. The purpose of the study was to assess the impact of center line rumble strips on the number of head on and sideswipe collisions in the state of Michigan. The data for this study were obtained from Michigan Traffic Crash Facts and Michigan Department Transportation for 2004 through 2009. The results indicate a significant decrease in head on and sideswipe collisions after installation of center line rumble strips.

**Idema, Catherine**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

CATHERINE IDEMA, CHELSEA SAGE, OUEN HUNTER, RYAN NICHOLLS, LINNEA MARKS & CHRISTINE M. SMITH

Groups and individuals created novel creatures to inhabit a new planet. Half of the participants created creatures after viewing three examples that contained common characteristics. Results suggest that groups adhered to the provided examples more, especially early in the idea generation stage.

**Jackson, Cory**

April – June FY11



## Teaching Public Administration Conference

### "AmeriCorps: Love it or Lose it"

This paper focuses on the extraordinary impact of the national service program, AmeriCorps. By exploring the rich history of government subsidized initiatives, we are able to recognize that the integration of AmeriCorps has substantially improved issues in social justice, increased environmental sustainability, and has positively impacted market systems in the United States (Perry, Thompson, Tschirhart, Mesch, & Lee, 1999). Additionally, the paper highlights the history of service in the United States, the importance of the government funded initiatives, and the role they play in the teaching of volunteerism.

President George Bush declared nearly 20 years ago that volunteering is something close to a patriotic obligation in serving America (Wofford, 2002). In the spirit of nationalism, civic engagement began in the period of the founding fathers; the American people desired a sense of community and service to others was the foundation in achieving this unity. Poverty, hunger, and homelessness are just a sample of the many hardships facing Americans today. With this in mind, President Clinton created a domestic service organization in 1991 called AmeriCorps, which has become the foundation for lifelong service initiatives in America (Wofford, 2002). By learning and teaching the history of service initiatives in America, it is easier to understand both the need and significance of government funded service programs.

Just as the history of volunteerism is rich, the impact of AmeriCorps is unbounded. Since its initiation, an estimated 500,000 members have served their country and had an economic impact of two billion dollars (AmeriCorps, 2011). The lifelong effects on AmeriCorps members are exceptional as they experience heightened leadership skills, an awareness of social and environmental issues in America, and a general sense of optimism for the future (Briggs & Peterson, 2010). By creating awareness of AmeriCorps and other service initiatives in the classroom, students learn the importance of civic engagement and are able to apply classroom knowledge to real world situations.

Service programs act as a teaching tool for students because they provide opportunities for connections outside the classroom to the greater world at hand; they do so while allowing for collaboration between Americans from diverse backgrounds to accomplish a collective outcome. Additionally, they bring classroom curriculum alive by placing students in capacities that encourage continued education to combat the social and environmental issues they confront during their year of committed service work.

Times are tough, yet volunteer rates continue to soar and are at an all-time high. Higher education is placing an emphasis on active citizenship with various service programs, children are beginning to volunteer at a younger age, and opportunities for civic engagement are limitless. The initiation of AmeriCorps has undoubtedly begun an ambitious movement in the United States. The future of volunteerism is bright, and service initiatives will continue to act as irreplaceable teaching aids for students and citizens alike.

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**Jacobs, Zachary**

April – June FY11

36th Annual Conference of the International Trumpet Guild

"Trumpet Prelude/Scholarship Presentation"

The GVSU trumpet ensemble is a nationally acclaimed musical group. Under the direction of Professor Richard Stoelzel, the group received top place multiple times at the National Trumpet Competition in Fairfax, VA. After a pre-screened audition, the ensemble was invited to perform at the 36th annual International Trumpet Guild Conference. The ensemble will perform with Jeff Uban, a former member of the Glenn Miller Jazz Orchestra and an alumni of GVSU. In attending this conference, the GVSU trumpet ensemble will be performing for an international audience of aspiring and world class musicians.

**Kelly, Amanda**

April – June FY11

Impact 2011-American Academy of Physician Assistants (AAPA)'s 39th Annual PA Conference

"Type II Diabetes Mellitus and the Patient-Provider Relationship"

Amanda Kelly BS, PA-S, Tara Salas BA, PA-S, Scott Parrott BA, PA-S, Philip Baty MD,  
Theresa Bacon-Baguley PhD, RN

Purpose: According to the CDC 7.8% of the population have diabetes (CDC). Individuals with diabetes are at a higher risk for serious health complications which increase morbidity and mortality. Previous studies have confirmed that this morbidity and mortality can be reduced with effective medical care. More data is needed on the association between the patient-provider relationship and diabetic control. The purpose of this study is to evaluate the relationship between patient perceived empathy in the patient-provider relationship and diabetic control as measured by HbA1C.

Materials and Methods: Five-hundred subjects were randomly selected from a registry of over 6,000 diabetic patients from a mid-west multi-centered family practice. Inclusion criteria included: HbA1C value in the past one year, >18 years of age, and a diagnosis of Type 2 diabetes for at least one year. Information obtained through a computerized query included gender, recent HbA1C value, and information on the medical provider (name, credentials, gender and years of practice). Subjects were mailed the CARE survey, a validated tool used to assess empathy in the

patient-provider relationship, along with a self addressed stamped envelope to return the survey to the researchers.

Results: 78 (16%) of the surveys were returned (eight surveys excluded because the subjects indicated Type 1 diabetes). 33 (47%) of the surveys were from males and 37 (53%) from females. Age range for males was 40 to 86 years(61 mean) and for females was 36 to 91 years(66 mean). Patient providers included: 36 MDs, and 4 DOs. Of the 40 patient providers, 31 were male and 9 were female. Male providers managed the care of 29(90%) of the male subjects and 21 (66%) of the female subjects, whereas, female providers managed the care of 3(10%) males and 11(34%) females. For all subjects HbA1C ranged from 5.3 to 12.4% (mean 6.9%). The range of HbA1C for males was 5.4 to 10.4 % (mean 7.0%) and for females was 5.3 to 12.4% (mean 6.9%). CARE survey scores ranged from 19 to 50 with a mean of 44.32 (a perfect score of 50 indicates an excellent empathy score). CARE survey scores were categorized into bivariate data, scores of >45 and scores <45. Linear regression of this data found CARE score to be a significant predictors of HbA1C value with the following: length of relationship (p=0.053), diabetes duration (p=0.022), length of provider practice (p=0.017), gender of provider (p<0.001), provider gender + patient age (p<0.001), and provider gender +diabetes duration (p=0.004). Further analysis identified a decrease in A1C with increased subject age, increase in A1C with increased diabetes duration and increase HbA1C (0.776%) in subjects having a female provider.

Conclusion: Overall the subjects who returned the CARE survey rated their provider with a high empathy score. Only when the CARE survey score was stratified by a great score (>45) and less than great score(<45) did we find predictors of HbA1C values. Other findings indicated that HbA1C is lower with increasing age, increased with diabetes duration and increased when cared for by a female provider.

**Kiser, Charalene**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Emotion socialization Practices of Caucasian and Hispanic Mothers"

Evidence of cross-cultural differences in emotion socialization suggests that cultural norms influence parenting strategies. This study compares Caucasian and Latino-American mothers of 2-year-old children to evaluate variations in emotion socialization strategies as a function of ethnicity.

American culture values individualism, and parenting strategies are often problem-focused responses directed towards the cause of the child's distress (Fabes et al., 2002), which fit the model of individualistic emotion competence. In contrast, the importance of interpersonal relationships in Latino cultures (Romero, Cuéllar, & Roberts, 2000) predicts that Latino-American mothers would be more likely to discuss emotional expressions with their children in order to facilitate relational emotional competence, i.e., adapting the emotional responses to the context.

N = 60 mothers of 2-year-old children living in West Michigan were interviewed for this study as a part of a broader research project. The CCNES (Fabes et al., 2002) was adapted into an interview and the vignettes were modified to include a wider range of emotions and adjusted to accommodate younger children. Responses were coded by three independent raters, and statistical analyses include loglinear modeling and MANOVAs.

Preliminary results demonstrate differences in emotion socialization strategies between Caucasian- and Latino-American mothers.

**Knuppe, Amy**

April – June FY11

Gait and Clinical Movement Analysis Society (GCMAS) Annual Conference

"PROLONGED SWING PHASE RECTUS FEMORIS ACTIVITY IS NOT ASSOCIATED WITH STIFF KNEE GAIT IN CHILDREN WITH CEREBRAL PALSY: A RETROSPECTIVE STUDY OF 407 LIMBS"

Knuppe AE, Bishop NA, Clark AJ, Barr KM, Miller AL, Alderink GJ

**INTRODUCTION:** Stiff-knee gait (SKG) is a common gait deviation affecting children with cerebral palsy (CP). Functionally, SKG can limit swing phase toe clearance and necessitate energy-costly compensations. Prolonged swing phase rectus femoris (RF) activity has long been implicated as a cause of SKG and continues to be cited as an indicator for RF intervention for the treatment of this common gait deviation<sup>1</sup>. However, more recent work has pointed to preswing factors, including RF activity, as the major determinants of SKG<sup>2,4,5</sup>. The purpose of this study was to determine what, if any, association exists between abnormal RF activity during preswing, initial swing and/or midswing and SKG in children with CP.

**CLINICAL SIGNIFICANCE:** If prolonged swing phase RF activity is not specific to those children with CP who demonstrate SKG, then this EMG finding should cease being thought of as an indicator for RF intervention in the treatment of SKG.

**METHODS:** This retrospective analysis involved three examiners independently reviewing sagittal plane knee kinematic and RF surface EMG data from 407 affected limbs of 234 pediatric CP patients (mean age 10 years and range 5-17 years). None of the limbs had undergone RF surgical intervention. Through visual inspection of a single representative gait cycle from each patient, the following five kinematic parameters were rated by each examiner separately as either normal or pathologic: (1) peak swing phase knee flexion, (2) knee flexion range of motion (ROM) during initial swing, (3) total knee ROM, (4) peak knee flexion timing, and (5) rate of knee flexion from preswing through midswing phase. These ratings were used to classify each limb into one of three groups: SKG (e 3/5 parameters pathologic), Borderline Stiff Knee Gait (BSKG; 2/5 parameters pathologic), or Non-Stiff Knee Gait (NSKG; < 2/5 parameters pathologic). Additionally, a representative EMG tracing for each patient was carefully divided into 3 phases of the gait cycle -- preswing (opposite foot contact to toe-off), initial swing (first third of swing), and midswing (middle third of swing). Because RF activity has been shown to normally occur during the latter half of preswing through the first third of initial swing<sup>3</sup>, RF activity was examined only during: (a) the first half of preswing, (b) the latter 2/3 of initial swing, and/or (c) any portion of midswing (Figure 1). RF was considered active if its activity during that period was believed to be substantially higher in amplitude than the quietest baseline

RF activity found elsewhere in the gait cycle. In the rating of both the 5 kinematic indicators as well as the EMG activity during the 3 phases of the gait cycle, agreement by at least 2 of 3 examiners was required. For the purpose of assessing intrarater reliability, the data from a subset of 20 of the original 407 limbs (5%) were randomly selected for reevaluation. Examiners were blinded as to their original assessment results, and their findings were compared against a computerized assessment. Cohens Kappa was utilized to calculate intrarater and interrater reliability for the ratings of both the knee kinematics and the EMG. A post hoc analysis, with a threshold for pathology set at e 2 standard deviations from normal compared to the labs internal normative database, was performed on a subset of 44 of the 407 limbs surveyed (11%) in order to test the validity of examiners classification of knee patterns. Chi-squared tests of independence were used to determine if significant associations existed between the 3 groups (SKG, BSKG, NSKG) and RF activation during the 3 portions of the gait cycle. Significance was set at  $\pm=0.001$ . RESULTS: There was no association found between SKG and either prolonged RF activity during initial swing or midswing. In fact, 90% and 95% of all limbs demonstrated prolonged RF activity during initial and midswing respectively, regardless of knee pattern. A significant relationship between SKG and RF activity was found only for the preswing phase ( $p<<0.001$ ): In general, those with SKG more often demonstrated premature RF activity during preswing (Table 1). Interrater reliability was moderate to substantial (0.46-0.62), while intrarater reliability was fair to excellent (0.31-0.92). Validity analysis of the knee pattern classification by the 3 examiners showed 86.4% agreement with the computerized assessment in this subset.

DISCUSSION: Premature RF activity during the preswing phase of gait has a significant association with SKG. However, neither prolonged RF activity during initial swing, nor the presence of RF activity during midswing, are associated with SKG, thus refuting these commonly held associations. The current findings support the work of other authors which found preswing, rather than swing, phase RF activity to have the most impact on SKG 2,4,5. However, the current study is the first to do so using a large sample of pediatric CP patients. Further investigation is needed to understand the cause and impact of prolonged swing phase RF activity seen in the vast majority of all patients reviewed regardless of their swing knee pattern. However, prolonged RF activity in swing should not be considered a cause of SKG in this

population. Limitations of the current study include the retrospective design, the qualitative analysis of EMG data, and the broad range of reliability among raters.

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## **Kruis, Ryan**

April – June FY11

International Congress of Qualitative Inquiry Conference

"A Photovoice Exploration of Religion and Spirituality Among Social Work Students and Practitioners."

Ryan Kruis

This presentation explores a topic of burgeoning interest in the social work field, spirituality and religion. Many social work programs address the integration of spirituality and religion into social work practice in a minimal way. This study employed a photovoice method to explore eleven social work students experiences with spirituality and religion. This research used commonly accepted aspects of spirituality, including hope, meaning, and purpose, in assessing participants understanding of spirituality. Participants, who generally self-identified as religious and/ or spiritual, participated in three phases of data collection. The prompt questions and debriefing processes focused on three subject matters: participants personal spiritual and religious identities, participants experiences within their academic curricula, and how participants integrate spirituality and religion in social work practice. This presentation shares the method and responses of this work, which used photo elicitation in provoking thought and generating discussion around an abstract and often deeply personal topic.



**LaRue, Elizabeth**

April – June FY11

Society for the Study of Evolution: Evolution 2011

"Population genetic structure of the round goby in Lake Michigan: implications for dispersal of invasive species"

Elizabeth A. LaRue, Carl R. Ruetz III, Michael B. Stacey, Ryan A. Thum

Understanding subsequent dispersal of exotic species following introduction is essential for predicting the extent and rate of range expansion, which is vital for effective management and risk assessment. Post-introduction dispersal may occur naturally or via human transport, but assessing the contribution of each is difficult for many organisms. We use data from seven microsatellite markers to study dispersal patterns and gene flow among 12 pierhead populations of the round goby (*Neogobius melanostomus*) in Lake Michigan. We find significant population structure among sites within this Great Lake: (1) many populations exhibit significant pairwise  $F_{ST}$  and (2) a Bayesian assignment analysis revealed three distinct genetic clusters that correspond to different pierhead locations, and genetic admixture between clusters in the remaining populations. We see that genetic differentiation ( $F_{ST}$ ) is typically related to geographic distance (i.e., isolation by distance), but is occasionally interrupted at the scale of Lake Michigan due to gene flow among geographically remote sites. In addition, average genetic differentiation among populations reveals a significant, negative correlation with amount of shipping cargo at ports at sampling sites. Our results supply evidence that genetic structure of the round goby in Lake Michigan results from limited natural dispersal with frequent long-distance dispersal through anthropogenic activity such as commercial shipping. Our study suggests that round gobies undoubtedly can disperse and found new populations by natural dispersal mechanisms, their spread within and among the Great Lakes is probably aided from transport by ships. Thus, we recommend ship ballast-water be treated and that management could limit the spread of exotic species in the Great Lakes after introduction, while also preventing the introduction of non-native species to the Great Lakes.

**Lillmars, Leah**

April – June FY11

Impact 2011-American Academy of Physician Assistants (AAPA)'s 39th Annual PA Conference

"Quality of Life Outcomes After Sacrocolpopexy"

Leah Lillmars, Renae Conner; Beth Wiegand; Theresa Bacon-Baguley, PhD, Samir Hamati, MD

Purpose: Uterine prolapse is a common condition in females and has been reported to have an incidence of 50% in females older than 50 years of age. Sacrocolpopexy is a surgical procedure to reposition vaginal vault prolapse into the correct anatomical position. To assess the success of sacrocolpopexy, it is important to consider both the objective outcomes (i.e. complications) as well as the subjective quality of life outcomes, which are assessed from the patients point of view. The purpose of this study was to compare pre-surgical and post-surgical quality of life outcomes pertaining to bladder, bowel and vaginal symptoms after sacrocolpopexy.

Materials and Methods: One-hundred patients who underwent daVinci robotic sacrocolpopexy between October- 2007 and March-2010 were identified and mailed questionnaires which assessed quality of life: the PFIQ-20 and two versions of the PFIQ-7. One version of the PFIQ-7 was used to assess quality of life measures before the surgery. The second version was used to assess quality of life measures after the surgery. Two additional questions were included in the mailings. The two questions were: Overall, how do you feel in terms of your prolapse since your surgery? and Would you choose to have the surgery again? In addition, there was a qualitative question that allowed the subject to elaborate on why they would not choose to have the surgery again.

Results: Fifty-seven patients (57%) returned the completed surveys. Age range at the time of surgery was between 40 and 83 years old and the average BMI was 27.5. The pre-and post-surgical PFIQ-7 scores were compared to determine if there was a change in the quality of life. Using the Wilcoxon Signed Rank test, a significant decrease in symptoms was found when comparing the pre-surgical to post-surgical summary scores of the PFIQ-7, 58.98 and 19.88

respectively ( $p < 0.001$ ). The pre-surgical mean bladder symptoms (mean 25.42) showed a significant decrease when compared to the post-surgical bladder symptoms (mean 10.37) ( $p < 0.001$ ). Also, a significant decrease was found between the pre-surgical (12.33) and post-surgical (5.10) bowel symptoms ( $p = 0.007$ ). Lastly, a significant decrease was found between the pre-surgical (21.89) and post-surgical (4.69) vaginal symptoms ( $p < 0.001$ ). The result of the PFIQ-20 identified that 51.8% of the subjects had no complaints of vaginal prolapse symptoms following surgery, 30.4% had no colorectal symptoms, and 26.8% had no urinary complaints. According to the added questions, 96.4% identified that they had improvement or marked improvement after the surgery. No patients reported to be worse or markedly worse after the surgery, and 94.7% reported that they would have the surgery all over again.

**Conclusion:** This study found a significant increase in the quality of life (measured by a decrease in symptoms) after undergoing sacrocolpopexy in all three areas assessed by the PFIQ-7: bladder, bowel and vaginal symptoms, as well as a significant overall improvement. In addition, an overwhelming amount of patients (95%) stated that they would have the surgery again.

**Louden, Patrick**

April – June FY11

Midwest Theoretical Chemistry Conference

"Molecular Dynamics Simulation of the Condensation Coefficient of Water"

Experiments have found the condensation coefficient for water condensing onto pure water to be between 0.1 and 1 with more recent experiments having found a value of  $0.2 \pm 0.1$ . However, molecular dynamics simulations of water result in a condensation coefficient of 1. These deviations could result from assigning condensed phase parameters to the bulk, surface, and gas phase water molecules in the simulations. We varied the charges and the Lennard-Jones parameters for a gas phase water molecule in a condensation simulation using the SPC/E model. We have concluded that to obtain a simulation condensation coefficient of 0.2, unrealistic parameters must be assigned to the water molecules.

**Lucas, Shana**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Socialization of emotion: A comparison between European American and Hispanic mothers"

Shana Lucas

This study aims to compare the criteria of children's competence between Hispanic and Caucasian mothers. N = 35 Caucasian and Hispanic-American mothers of 2-year old children were interviewed. Based on the Criteria for Competence Interview mothers were asked to describe children between 2-5 years who are doing-well and not doing-well. The open answers were transcribed, translated and coded by three independent raters.

Preliminary results point to six global characteristics in child competence: achievement, conformity, self-direction, sociability, well-being, and emotional adjustment. Furthermore, Hispanic-American mothers seem to favor conformity more whereas European American mothers favor self-direction.

Due to the strong increase of the Hispanic population over the last two decades (Veeck, Veeck, Hyter & Santiago-Valles, 2004), such knowledge about ethnic differences becomes essential for professional caregivers so they become aware that children with different ethnic backgrounds may display unique behavior based on the varying expectations within their families.

**Middlewood, Brianna**

April – June FY11

Midwestern Psychological Association May 5-7

"Nonsocial threats activate belonging regulation processes"

Brianna Middlewood

Major Purpose: Belonging regulation involves 1) the identification of threats to belonging and, 2) cognitive and behavioral processes that facilitate reconnection (e.g., Leary & Downs, 1995; Pickett & Gardner, 2005). Indeed, research shows that fluctuations in self-esteem, nonverbal cues, and possible social exclusion instigate belonging regulation (e.g., Leary, 2005). Additionally, heightened belonging needs elicit greater accuracy for facial expressions and vocal tones (Pickett, Gardner, & Knowles, 2004), activation of group identities (Knowles & Gardner, 2008), enhanced generosity (Maner et al., 2007), and enhanced performance on group tasks (Williams & Sommers, 1998).

The current studies expand on this belonging regulation model. First, we propose that nonsocial experiences that implicate relational value can initiate belonging regulation processes. Second, we propose activation of the interdependent self as an additional mechanism of social reconnection. We hypothesized that possible failures (vs. successes) on an upcoming task would initiate belonging regulation, as evidenced by activation of the interdependent self. Furthermore, we expected that possible failures (vs. successes) would facilitate behavioral attempts at social reconnection, but only within interdependent contexts (which allow for belonging regulation).

Procedure: Study 1: Participants received loss-framed or gain-framed standards regarding their possible performance on an upcoming visual-spatial task, then completed a lexical decision task including independent (e.g., unique), interdependent (e.g., team), neutral (e.g., room) and nonwords. Study 2: Participants received loss-framed or gain-framed standards regarding their possible performance on an upcoming anagram task, and were led to believe they would complete this task individually or in conjunction with other participants. Task performance was measured as the number of anagrams attempted.

Results: Study 1: As predicted, participants responded faster to interdependent words when anticipating a failure (vs. a success),  $F(1,50)=2.78$ ,  $p=.10$ . Similarly, participants responded faster to interdependent words than independent words when anticipating a failure,  $F(1,51)=10.21$ ,  $p<.01$ . Study 2: As predicted, possible failures significantly enhanced

performance in the group (vs. individual) context,  $F(1,79)=7.63$ ,  $p=.01$ , whereas possible successes did not significantly impact performance as a function of task context,  $F<1$ .

Conclusions/implications: In sum, the belonging regulation process appears to be sensitive to relatively nonsocial experiences that implicate belonging needs. This was evidenced across two studies, which examined belonging regulation in terms of the spontaneous activation of the interdependent self (Study 1) and task performance within interdependent contexts (Study 2). Discussion will center on implications and future directions.

**Nelson, Whitney**

April – June FY11

North American Benthological Society Annual Meeting

"Composition and Toxic Sensitivity of Benthic Macroinvertebrate Assemblages in Muskegon Lake, a Great Lakes Area of Concern"

Whitney A. Nelson and Alan D. Steinman

Benthic invertebrate growth, reproduction, and survival in response to anthropogenic stressors can provide insights into the ecological health of an ecosystem. The current study focuses on Muskegon Lake (Michigan), a coastal drowned river mouth lake that has been listed as a Great Lakes Area of Concern (AOC) because of impairments associated with past industrial activities. Benthic samples were collected 3 times per year, from 2004 through 2010. Samples were analyzed to identify spatial and temporal patterns in the density and diversity of benthic invertebrate populations, as well as to determine if invertebrate community patterns were related to environmental variables. Toxicity was assessed using in situ chambers with sediments from Muskegon Lake, as well as from a nearby control lake, to quantify the direct adverse impact of contaminated sediments on *Hyalella azteca* and *Chironomus tentans*. Preliminary results from in situ experiments show no effect of sediments on invertebrate survival. However, analysis of benthic samples shows that in each year between 2004 and 2010, there was an increased percent

abundance of predatory chironomids vs. total chironomid population at historically contaminated sites.

**Nieman, Rebecca**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Looking for differences in data: Childrens data comparison strategies"

Rebecca Nieman

Comparing sets of numbers is a critical skill in mathematics, science, and everyday life. It is possible that children possess intuitive strategies for number set comparison in which sets are represented as summary values with approximations of means and variance. We investigated how 8-12 year old children assessed number sets by examining how the properties of the data sets (e.g., mean differences) influence accuracy and confidence in differences. We also looked at the number and location of eye fixations during comparisons to evaluate children's data comparison strategies.

Method. Participants were 12 8-12 year-old children (  $M = 10.2$ ). Participants saw 36 data set pairs with the following properties: (a) set size 4 or 8, (b) ratio of means of either 2:3, 4:5 or 9:10, and (c) variance of either 10% or 20% of the mean.

Procedure. Participants were asked to determine which of two golfers (LEFT or RIGHT side) hit the ball farther (accuracy) and rate their confidence in this evaluation on a 4-point scale (1 = NOT AT ALL SURE, 4 = TOTALLY SURE). Data sets were presented on a Tobii T-60 eye tracker. Areas of Interest (AOIs) were defined around the hundreds, tens, and ones columns and around each three-digit number. The number of fixations within each AOI was automatically recorded. We proposed a series of possible evaluation strategies before data collection (see Table 1).

Results and Discussion. As mean ratios decreased and variance increased, accuracy and confidence decreased and the number of fixations increased, suggesting that the statistical properties of the sets influenced comparisons (see Table 2). Most fixations occurred in the hundreds column (77%) with fewer fixations on the tens and ones columns. The modal strategy was gist (68% of trials), followed by first/last (12%), win/loss (10%), and calculation (8%). A child was coded as using a strategy if s/he used the same fixation strategy on at least 75% of trials (10/12 children). Accuracy was related to strategy selection: the gist strategy was the most accurate (94%), followed by calculation (86%), and first/last strategies (61%). The results suggest that children's intuitive strategies for data are quite accurate; when children simply scanned the data, their intuitions about differences are excellent until sets become highly similar (in this case 9:10 ratio). Interestingly, explicit calculation was less accurate than the gist strategy. Children's approximate number system may use both relative means and variances to represent summary values of number sets.

**Nguyen, Long**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Just World Belief, Religiosity, and Attributions of Responsibility for Misfortune"

Long Nguyen

Background:

Social identity theory suggests that shared identity can play a role in judgments of responsibility and blame for misfortune. Shared political or religious identity can result in biases in blame in the case of misfortune (Zucker & Weiner, 1993). A strong belief in a just world may increase victim blaming in situations of misfortune (BJW; Lerner, 1965). The current study assesses the effect of religiosity, BJW, and conservatism in predicting responsibility attributed to victims of the earthquake disaster in Haiti.



## Procedure:

Participants completed measures of BJW, conservatism, and religiosity. They were assigned to two scenarios: one describing the destruction of a Catholic town in Haiti, the other describing a town of Voodoo affiliation. Multiple regression was used to assess the attribution of responsibility for their plight based on religiosity, conservatism, and BJW.

## Results:

When the town was depicted as Christian, conservatism of the participant predicted attributions of responsibility. When the town was Voodoo, the participants religiosity was a greater predictor of attributions of responsibility.

## Conclusion:

Shared religious background affects the attributional process for responsibility for misfortune.

## **Nicholls, Ryan**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Group creativity: The constraining effects of examples"

CATHERINE IDEMA, CHELSEA SAGE, OUEN HUNTER, RYAN NICHOLLS, LINNEA MARKS & CHRISTINE M. SMITH

Groups and individuals created novel creatures to inhabit a new planet. Half of the participants created creatures after viewing three examples that contained common characteristics. Results suggest that groups adhered to the provided examples more, especially early in the idea generation stage.

**Ortiz, Edwin**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Conceptions of Child Competence: A Comparison Between Caucasian and Hispanic-American Mothers"

Edwin Ortiz

This study aims to compare the conception of children's competence between Hispanic and Caucasian mothers. Hispanic culture emphasizes interdependence and Caucasian culture independence and preliminary results suggest that differences in Hispanic and Caucasian mothers conceptions of young children's competence already reflect these general ethnic norms.

**Parish, Grace**

April – June FY11

Impact 2011-American Academy of Physician Assistants (AAPA)'s 39th Annual PA Conference

"Characterization of the Detection of Breast Cancer in Females Registered in the Michigan Breast Oncology Quality Initiative"

Jennifer Kreinbrink BS, PA-S, Grace Parish BS, PA-S, & Daniel Smith BS, PA-S

Purpose. The American Cancer Society estimates women within the United States have a one in eight lifetime risk of being diagnosed with breast cancer. To track the detection of breast cancer, the Michigan Breast Oncology Quality Initiative (MiBOQI) was established. The purpose of this study was to characterize breast cancer detection and staging in females who were part of the MiBOQI registry between the years 2006 and 2009.

Methodology. De-identified data was obtained from the MiBOQI, a multi-institutional, statewide breast cancer registry of women diagnosed and treated for breast cancer in Michigan.

Characterization of women in the registry was analyzed based on method of detection, age and stage of cancer at time of diagnosis, type of treatment, ethnicity, presence of estrogen receptor and HER2NEU.

Results. 5903 females were identified between 2006 and 2009. Average age at time of diagnosis was approximately 59 years of age (YOA) with 6% <40 YOA, 20% between 40-49 YOA, 51% between 50-69 YOA, and 23% >69 YOA. A breakdown of ethnicity revealed: 78% Caucasians, 13% African American, 2% Asian, 1% Hispanic, and 5% other. Tumor identification by an abnormal mammogram occurred in 66% of cases, self-breast exam in 27%, clinician breast exam in 3%, and other indications (i.e. axillary mass) in 4%. 18% were diagnosed at stage 0, 44% at stage I, 29% at stage II, and 9% at stage III. On pathology analysis, 80% of tumors were estrogen receptor positive and 11% were HER2NEU positive. Treatment included mastectomy for 34% and conservative surgery for 65%. Adjunctive treatment included chemotherapy (14%), hormones (26%), and chemotherapy and hormones (15%). Mortality information was not available.

Discussion. The analysis of the MiBOQI data was compared to published data. Mathis and colleagues at the Mayo Clinic (Rochester) reported the average age at diagnosis was 60 YOA, and similar findings were found for all age brackets compared to the MiBOQI: <40 YOA (6% MiBOQI: 4.5% Mathis et al.), between 40-49 YOA (20% MiBOQI: 19.5% Mathis et al.), between 50-69 YOA (51% MiBOQI: 51.4% Mathis et al.), and >69 YOA (23% MiBOQI: 24.6% Mathis et al.). Comparing method of diagnosis shows: diagnosis by mammography (66% MiBOQI: 57% Mathis et al.); diagnosis by self-examination (27% MiBOQI: 29% Mathis et al.); and clinician breast exam (3% MiBOQI: 14% Mathis et al.). Similar findings regarding the stage at time of diagnosis were found except for a greater percentage of stage III in the MiBOQI subjects, 3.9% compared to 9%. According to Mathis et al., 75% of breast cancer is estrogen receptor positive and approximately 25% of breast cancers are HER2/NEU positive. Compared to the MiBOQI, a greater number of breast cancers are estrogen positive (80%) and less are HER2NEU positive (11%). There was no known comparison data available for ethnicity. Based on a review of the literature, females in the MiBOQI are slightly younger, have a greater

percentage of detection by mammography, a higher percentage of estrogen positive cancers and less prevalence of HER2/NEU.

**Powers-Schaub, Simon**

April – June FY11

American Literature Association Conference

"His Dream, Her Reality: Two Principles of Mental Functioning in E.E. Cummings' Him"

Simon Powers-Schaub

This paper analyzes E. E. Cummings' three-act play *Him* in a Freudian manner. It takes the male lead, Him, as a representative of the pleasure principle, and the female lead, Me, as a representative of the reality principle. It begins with the biographical background of the play as described in Richard Kennedy's *Dreams in the Mirror*, and denies Kennedy's claim that Cummings was unable to unify the material of the play into a cohesive whole. It regards the play as unified along psychoanalytic principles, the two most prominent of which are the pleasure and reality principles. In true Freudian fashion, it begins with an analysis of a dream Him's dream, as he recounts it in Act III, Scene V. This dream, in which Him confronts the daughter with which Me may or may not be pregnant, is the play's best example of Him's subordination to the pleasure principle and his inability or unwillingness to face reality, particularly the reality of Me's wanting to leave him, and not wanting children. It also reveals Him's refusal to grow up, a refusal that in some sense mirrors Cummings' own, and his anxiety about not being able to communicate with the child, and by extension, her mother. Ultimately, this anxiety leads to one final attempt, in the play's concluding scene, to communicate with Me, whose breaching of the fourth wall is here interpreted as a sign of her ability to embrace reality where Him cannot. This leads Him to realize the most painful reality of all: that nothing he has believed up to this point is real.

**Petersen, Mark**

April – June FY11

## 36th Annual Conference of the International Trumpet Guild

"Trumpet Prelude"

Mark Petersen

The GVSU trumpet ensemble is a nationally acclaimed musical group.

Under the direction of Professor Richard Stoelzel, the group received top place multiple times at the National Trumpet Competition in Fairfax, VA. After a pre-screened audition, the ensemble was invited to perform at the 36th annual International Trumpet Guild conference. The ensemble will perform with Jeff Uban, a former member of the Glenn Miller Jazz Orchestra and an alumni of GVSU. In attending this conference, the GVSU trumpet ensemble will be performing for an international audience of aspiring and world class musicians.

### **Robinson, Carol**

April – June FY11

10th Annual Association of Standardized Patient Educators Conference

"End of Life Simulation of Therapeutic Communication and Care Using Standard Patients and SimMan®"

Overview: Clinical simulation of end-of-life (EOL) scenarios can give students the opportunity to learn the vital concepts of EOL care in a safe environment. At Grand Valley State University, we conducted a live simulation of therapeutic communication for EOL discussion with standard patients, and simulation of an actively dying patient, using one standard patient and SimMan®. The simulations were part of an elective EOL class, consisting of various undergraduate majors. A doctor of nursing (DNP) student taped an interview of a model patient couple processing the recent bad news of a terminal diagnosis. The video was shown to the class, followed by a live interaction of the students with the model patients as they discussed which communication techniques were helpful. Three weeks later, the patient (now SimMan) was readmitted to our simulation lab with our model patient wife, and students were invited to participate in the care of

the patient and his family while he died. Students originally were reticent to volunteer to participate in the death simulation. The DNP proceeded with the simulation, then offered to perform the simulation again with any student volunteers. Two undergraduate nursing students volunteered. During the debriefing, barriers to participating in the simulation, given the safe environment, were discussed. Feedback included discomfort with caring for the dying without more experience. This simulation underscored the need for further education for undergraduate nurses in palliation and EOL care.

Rationale: Practicing nurses report that they have received very little undergraduate education in palliative and EOL care. Rarely does the student have the privilege of caring for someone who is actively dying. Using AACN and ELNEC competencies and course outcomes as a guide, simulations can provide the student insights into elements of care that seem to provide the most emotional distress for students: emotional support to patients who are dying (and their families), physical care, and postmortem care.

Objectives: 1. Review seminal literature in EOL simulation  
2. Describe process of producing a clinical simulation for EOL using both standard model patients and SimMan®. 3. Discuss debriefing methods/results for students following the scenario.

Intended Discussion Questions: 1. What experiences have audience participants had with EOL simulation (non-BLS/ACLS focused)?  
2. What barriers stand in your way to produce an EOL simulation in your environment?

Session Format: Lecture and presentation of video clips from the simulations  
Interactive dialogue following presentation.

**Roos, Robert**

April – June FY11

Society of Ecological Restoration - Midwest Great Lakes Chapter

"A Michigan Sand Prairie Restoration Experiment: Nature or Nurture?"

Sand prairie in Michigan was a primary component of the states historical oak-pine barrens ecosystem. However, sand prairie has been all but eliminated in the state and few attempts at restoring this ecosystem have been conducted. Our sand prairie restoration experiment, established in 2009 at the Chittenden Nursery in the Manistee National Forest, seeks to develop a successful approach to restoring this ecosystem. Specifically, we examine the influence of variable seeding rates of native plant functional groups (graminoids, early season forbs, late season forbs, legumes) on plant community restoration success. Here we present data from 2010 that examines how seeding has affected community variables since the initiation of the experiment and seeded plots exhibit significant changes in these variables over and above changes exhibited in non-seeded plots? Here we differentiate between changes due to succession (i.e. nature) from changes due to our restoration efforts (i.e. nurture).

**Sage, Chelsea**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Group creativity: The constraining effects of examples"

Groups and individuals created novel creatures to inhabit a new planet. Half of the participants created creatures after viewing three examples that contained common characteristics. Results suggest that groups adhered to the provided examples more, especially early in the idea generation phase.

**Salas, Tara**

April – June FY11

Impact 2011-American Academy of Physician Assistants (AAPA)'s 39th Annual PA Conference

"Type 2 Diabetes Mellitus and the Patient-Provider Relationship"

Amanda Kelly, Tara Salas, Scott Parrott, Philip Baty, and Theresa Bacon-Baguley

**Purpose:** According to the CDC 23.6 million, 7.8% of the population, have diabetes (CDC). Individuals with diabetes are at a higher risk for serious health complications which increase morbidity and mortality. Previous studies have confirmed that this morbidity and mortality can be reduced with effective medical care. There is little data on the association between the patient provider relationship and control of chronic disease states such as diabetes. The purpose of this study is to evaluate the relationship between patient perceived empathy in the patient provider relationship and diabetic control as measured by HbA1C.

**Materials and Methods:** Five-hundred subjects were randomly selected from a registry of over 6,000 diabetic patients from a mid-west multi-centered family practice. Inclusion criteria included a HbA1C at least one year prior to the study, >18 years of age, and a diagnosis of Type 2 diabetes for at least one year. Information obtained through a computerized query included patient gender, most recent A1C value, and information regarding the patient provider (name, education, gender and number of years of practice). Subjects were mailed the CARE survey, a validated tool used to assess empathy in the patient-provider relationship, along with a self addressed stamped envelope to return the survey.

**Results:** Seventy eight (16%) of the surveys were returned with eight surveys excluded because the subjects indicated they had Type 1 diabetes. 33(47%) of the surveys were from males and 37(53%) from females. Age range for males was 40 to 86 years(61 mean) and for females was 36 to 91 years(66 mean). Fourth, providers were identified: 36 MDs, and 4 DOs. Of the 40 patient providers, 31 were male and 9 were female. Male providers managed the care of 29(90%) of the male subjects and 21 (66%) of the female subjects, whereas, female providers managed the care of 3(10%) of the male subjects and 11(34%) of the female subjects. In the total sample HbA1C values ranged from 5.3 to 12.4% (mean 6.9%). The range of A1C for males was 5.4 to 10.4 % (mean 7.0%) and for females was 5.3 to 12.4% (mean 6.9%). The results of the CARE survey revealed a range of 19 to 50 with a mean score of 44.32 (a perfect score of 50 indicates an excellent empathy score). A linear regression model created using CARE survey scores of 45 or greater and scores less than 45 resulted in significant predictors of HbA1C scores and length of



relationship ( $p=0.053$ ), diabetes duration ( $p=0.022$ ), length of provider practice ( $p=0.017$ ), gender of provider ( $p<0.001$ ), provider gender + patient age ( $p<0.001$ ), and provider gender +diabetes duration ( $p=0.004$ ). Further analysis identified that there is a decrease in A1C with increased age, increase in A1C with increased diabetes duration and having a female provider increases HbA1C by 0.776.

Conclusion: Overall the subjects rated their provider with a high empathy score. Only when the CARE survey score was stratified by a great score (45 or greater) and less than great score(<45) did we find predictors of HbA1C values (length of relationship, diabetes duration, length of provider practice, gender of provider, provider gender + patient age, and provider gender + diabetes duration). Other findings indicated that HbA1C is lower with increasing age, increased with diabetes duration and increased when cared for by a female provider.

**Sanford, M. Andrew**

April – June FY11

Ohio Northern University Undergraduate Conference

"Metaphysical Origins of Ethics in Medieval Islamic Thought"

The ancient Greeks saw the universe as being ordered, therefore in their metaphysics they reasoned back to a first cause of that order. Plato posited an ideal good and Aristotle a prime mover. Concepts of an ideal good or prime mover provided the framework for the Medieval Islamic thinkers to develop a paradigm for describing and understanding God. There God created necessarily and lacked free will. From this they drew parallels between reasoning back to God and the goal of human action. A major paradigm for understanding this is the Divine Command Theory (DCT). I think there are considerable flaws in the DCT paradigm which presents Gods commands as arbitrary. Examining how Aristotle and the Medieval Islamic Philosophers thought about God and his lack of free allows us to dispose of the arbitrariness problem. Aristotles virtue ethics are for the Medieval Islamic thinkers a step beyond the metaphysical origins which I outline in this essay. I suggest that love plays a role in properly fashioning a rational ethical system. For love to be best understood we need a Supreme Love-Giver and such a Love-Giver

would necessarily have to be a personal God. Aristotle suggests that it is desire for the unmoved mover that causes motion and the Islamic thinkers have related this to a metaphysical foundation for an ethical system, which solves the arbitrariness problem in the DCT and provides us with a love based ethic.

**Santa Maria, Anne**

April – June FY11

American Association of Geographers (AAG) Annual Meeting

"Assessing Human Impacts on Campsites: A Critique of U.S. Forest Service Methods"

Anne Santa Maria

Forest Service personnel in a large National Forest located in an eastern state undertook a study during the summer of 2010 to inventory human ecological and social impacts on dispersed campsites. The inventory methods developed by the Forest Service personnel were questionable from a scientific standpoint and in this paper the author offers a critique of the Forest Service inventory methods and a proposal for an improved method. The proposed method would be a more effective use of limited economic and human resources and would allow the Forest Service to gather information in a timely way about the distribution of campsites to help inform management decisions.

**Smith, Daniel**

April – June FY11

Impact 2011-American Academy of Physician Assistants (AAPA)'s 39th Annual PA Conference

"Characterization of the Detection of Breast Cancer in Females Registered in the Michigan Breast Oncology Quality Initiative"

Daniel Smith, BS, PA-S, Jennifer Krienbrink, BS, PA-S, Grace Parish, BS, PA-S, Dr. Jamie Caughran, MD, Theresa Bacon-Baguley, RN, MSN, PhD, Frank Pleban, PhD

**Purpose.** The American Cancer Society estimates women within the United States have a one in eight lifetime risk of being diagnosed with breast cancer. To track the detection of breast cancer, the Michigan Breast Oncology Quality Initiative (MiBOQI) was established. The purpose of this study was to characterize breast cancer detection and staging in females who were part of the MiBOQI registry between the years 2006 and 2009.

**Methodology.** De-identified data was obtained from the MiBOQI, a multi-institutional, statewide breast cancer registry of women diagnosed and treated for breast cancer in Michigan. Characterization of women in the registry was analyzed based on method of detection, age and stage of cancer at time of diagnosis, type of treatment, ethnicity, presence of estrogen receptor and HER2NEU.

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**Discussion.** The analysis of the MiBOQI data was compared to published data. Mathis and colleagues at the Mayo Clinic (Rochester) reported the average age at diagnosis was 60 YOA, and similar findings were found for all age brackets compared to the MiBOQI: <40 YOA (6% MiBOQI: 4.5% Mathis et al.), between 40-49 YOA (20% MiBOQI: 19.5% Mathis et al.), between 50-69 YOA (51% MiBOQI: 51.4% Mathis et al.), and >69 YOA (23% MiBOQI: 24.6% Mathis et al.). Comparing method of detection shows: diagnosis by mammography (66%

MiBOQI: 57% Mathis et al.); diagnosis by self-examination (27% MiBOQI: 12.8% Mathis et al.); and clinician breast exam (3% MiBOQI: 14% Mathis et al.). Similar findings regarding the stage at time of diagnosis were found except for a greater percentage of stage III in the MiBOQI subjects, 4% compared to 9%. . There was no known comparison data available for ethnicity. Based on a review of the literature, females in the MiBOQI are of almost equal age, but have a greater percentage of detection by mammography and self breast examination. Staging at diagnosis is similar.

### **Smith, Nathaniel**

April – June FY11

Forming Identity, Transforming Space

“Latino American Women Immigration and Space in the Contemporary Spanish Novel”

Nathaniel Smith

The new Latin American immigration to Spain has been recently examined by a number of contemporary Spanish authors. The majority of these works put particular emphasis on the difficulties that Latino American women immigrants encounter in their new country. The female immigrant becomes a protagonist that is unable to break free from her societal entrapments while living inside the new country's borders. These women are confined to the space of the house where they work, while the women for whom they work are in search of a space outside the traditional role of the house. The woman's spaces are then being redefined by each group and are in constant conflict. The foreigner brings traditional norms of sociability that are refused. These immigrant women are looked upon as an outsider, the other whose culture and traditions are perceived to bring instability to the urban space. As a result, the historical memory is in tension. This essay studies these spaces in conflict in the 2008 novel *Madre mía que estás en los infiernos* by author and journalist Carmen Jiménez, and in José Ovejeros 2007 novel, *Nunca pasa nada*.

My name is Nathaniel Smith and I am a senior Spanish Language and Literature student at Grand Valley State University. Apart from having studied abroad twice (in Mexico then Spain) I am

also a varsity athlete on the Track and Field team, from which I have received six Academic All-Conference certificates, four appointments to the Deans List and one Academic All-American certificate. Every day I strive to equal the competitive fire I have on the track in the classroom.

**Summers, Nicole**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Conceptions of Child Competence: A Comparison Between Caucasian and Hispanic-American Mothers"

Nicole M. Summers

This study aims to compare the conception of children's competence between Hispanic and Caucasian mothers. Hispanic culture emphasizes interdependence and Caucasian culture independence and preliminary results suggest that differences in Hispanic and Caucasian mothers conceptions of young children's competence already reflect these general ethnic norms.

**Swanson, Samuel**

April – June FY11

36th Annual Conference of the International Trumpet Guild

"Trumpet Prelude"

The GVSU trumpet ensemble is a nationally acclaimed musical group. Under the direction of Professor Richard Stoelzel, the group received top place multiple times at the National Trumpet Competition in Fairfax, VA. After a pre-screened audition, the ensemble was invited to perform at the 36th annual International Trumpet Guild conference. The ensemble will perform with Jeff Uban, a former member of the Glenn Miller Jazz Orchestra and an alumni of GVSU. In attending this conference, the GVSU trumpet ensemble will be performing for an international audience of aspiring, world class musicians.

**Tole, Olvi**

April – June FY11

Great Lakes Bioinformatics Conference (GLBIO) 2011

"Towards Searching for Temporal Patterns in Gene Expression Profiles"

Advances in microarray technology have led to highly complex datasets often addressing similar or related biological questions. The statistical methodology of meta-analysis aims to combine results from independent but related studies. It is a relatively inexpensive option that has the potential to increase both the statistical power and generalizability of single-study analyses. For example, a meta-analysis of five circadian microarray studies of *Drosophila* helped researchers to identify a novel set of rhythmically expressed genes. We advocate here a related approach to potentially extend confirmed results to other species or organs. In translational medicine or biology research is often based on measurements that have been obtained at different points in time. The biologist looks at these values not as individual points, but as a progression over time. Our program (SPOT) helps the researcher find these patterns in large sets of microarray data. A researcher proceeds through three subsequent steps: first, selection of microarray data of interesting experiments from NCBI GEO, second, translating the temporal measurements into time intervals, and third, defining temporal concepts like "peaks" based on those intervals. Then he/she can search for genes that exhibit that particular pattern within the previously selected data pool. We created a software tool using open-source platforms that supports the R statistical package, Bioconductor, and Web 2.0 knowledge representation standards using the open source Semantic Web tool Protégé-OWL. We report here on the web interface that connects to programs based on R and Bioconductor.

**Villalobos, Lauren**

April – June FY11

North American Benthological Society Annual Meeting

## "ECOSYSTEM RESPONSES TO LOW-HEAD DAM REMOVAL: ASSESSMENT OF PHYSICAL HABITAT, WATER CHEMISTRY, AND MACROINVERTEBRATES"

Lauren Villalobos

This two year study focused on understanding the effects of dam removal on the low-head Nashville dam on the Thornapple River, Barry County, MI. A comparison of data taken from pre to post dam removal indicated changes to the physical habitat, water chemistry, and macroinvertebrate communities. In the reach directly below the dam there was an increase in fine sediment, causing an average cross-sectional channel aggradation of 26 cm, indicating reservoir erosion and subsequent downstream deposition. For macroinvertebrate communities, the percent EPT on artificial substrate increased from an average of 27 to 64 at all sites below the former reservoir ( $P < 0.05$ ). Further, in 2009 Isopods dominated the site directly below the dam, with an average of 222 Isopods at all downstream sites. In contrast there was an average of 4 isopods per site in 2010. Our results suggest that the removal of a low-head dam improved the macroinvertebrate community immediately below the dam, while the habitat quality is still degraded, but the impacts are proximate to the former dam site.

**Ver Wey, Amy**

April – June FY11

83rd Annual Meeting of the Midwestern Psychological Association

"Just World Belief, Religiosity, and Attributions of Responsibility for Misfortune"

Amy Ver Wey

Shared political or religious identity can result in blame for misfortune. A strong belief in a just world (BJW) may increase victim blaming in situations of misfortune. The current study assesses the effect of religiosity, BJW, and conservatism in predicting responsibility attributed to victims of the earthquake disaster in Haiti. Participants completed measures of BJW, conservatism, and religiosity. They were assigned to two scenarios: one

describing the destruction of a Catholic town, the other describing an identical Voodoo town. Multiple regression was used to assess the attribution of responsibility for their plight based on these factors. When the town was depicted as Christian, conservatism predicted attributions of responsibility. When the town was Voodoo, the participants religiosity was a greater predictor of attributions of responsibility, indicating that shared religious background affects the attributional process for responsibility for misfortune.

**Waterstradt, Carolyn**

April – June FY11

International Congress of Qualitative Inquiry Conference

"From Tears to Triumph: An Autoethnographic Reaction to Women's Spirituality after Clergy Sexual Abuse"

Carolyn Waterstradt

This paper is an autoethnographic response to individual interviews with seven women who were sexually abused as adults by members of the clergy. The focus of the interviews was the participants' spiritual healing. The interviews are interpreted through my experience as the researcher and as a survivor of clergy sexual abuse who was pursuing a career in the church until the abuse occurred. While exploring the spiritual healing of the participants, I come to terms with my own spiritual wound and find meaning in my midlife career change.

**ACF 2011 July - September Presentations**

**Fields, Ian**

July – September FY11

Midwestern Criminal Justice Association Meeting

"Taser Deployment: The Role of Departmental Policy and Training in Officer Discretion"



The amount of force police officers use in a given situation has always been grounded in proper training, departmental policy and the proper use of discretion. Changes in recent years have affected the number and type of weapons that officers carry that can be used to counter suspect resistance, or to diffuse potentially violent encounters. This paper will examine how Tasers have impacted the force continuum, as well as how they influence the normal decision-making process an officer uses to determine the level of force necessary in a given situation. Policy and training recommendations will also be presented.

**Taylor, Andrew**

July – September FY11

Conference of the Society for Text and Discourse

"Balanced evidence processing: Evidence based and affect-based subjects process scientific texts differently"

Processing and memory for scientific texts were examined as a function of belief towards a topic and the basis for that belief (evidence vs. affect). Sentence reading times were recorded while subjects read texts that either supported or refuted specific topics (evolution and television violence). Processing was assessed by regressing reading times on certain sentence characteristics, including the extent to which each sentence supports or refutes the text position. Belief basis, but not the beliefs themselves were a good predictor of reading times. Evidence-based subjects slowed down their processing for sentences that opposed the main text position (e.g. pro-evolution sentences in a text that argues against evolution). No such trend was seen in affect-based subjects. Results suggest that evidence-based subjects will, more than affect-based subjects, alter their level of processing throughout a text to create a balanced situation model.

**Verwys, Jonathon**

July – September FY11

Mathematical Association of America

"The Geometry of Compact Sets"

The Hausdorff metric provides a measure of distance between compact sets in any complete metric space. The metric is important for its applications in fractal geometry, image matching, visual recognition by robots, and computer-aided surgery. In this presentation, Sebastian Sanchez and Jonathon Verwys, participants in the Grand Valley State University Research Experiences for Undergraduates program, will present the results of their investigations into the geometry of compact sets of  $n$  dimensional real space, with emphasis on properties of betweenness and the trigonometry of this space.

**Zuellig, Matthew**

July – September FY11

Aquatic Plant Management Society (APMS) National Meeting

"Identifying Unique Biotypes of Eurasian Watermilfoil Using A Genetic Fingerprinting Method"

Aquatic plant managers increasingly recognize the role of unique biotypes that exhibit unique growth responses to management practice. One challenge to identifying biotypes is that they are often indistinguishable from one another based on morphology. I am exploring approaches involving the utilization of molecular markers to identify potentially unique biotypes. Here, I present the result of a genetic survey of Eurasian watermilfoil in North America using highly polymorphic molecular markers. This data reveals several genetically distinct populations, which may correspond to the presence of unique biotypes. This research emphasizes the degree of genetic variation that occurs within this system and how this variation may correspond to attributes of management concern.

**ACF 2011 October – December Presentations**

**Agius, Mike**

October – December FY11

Joint SERM/SWRM Regional Meeting

"Synthesis of novel cyclic heterocyclic compounds to interact with higher-order DNA"

Nate Strong, Mike Agius\*, Matt Schaenherr\*, Colin McGee\*, Tom Arusoo\*, Mary Karpen and Toni Rice

Higher-order DNA conformations can form within regions of DNA that are rich in guanines. Telomeric DNA is located at the end of human chromosomes, is guanine-rich and can fold into tetraplex DNA. Compounds that should interact and stabilize telomeric DNA are being developed. Increased binding affinity and selectivity over duplex DNA is a long-term goal of this work. The convergent synthesis of novel, cyclic, heterocyclic compounds will be described. The intermediate monomeric units were synthesized using a building block approach involving acid chloride-amine coupling reactions. The final cyclization reaction was achieved via the use of peptide coupling reagents in combination with the cation template effect. Quantum mechanical calculations were used to help select the appropriate template ions for use in the synthesis. As tetraplex interactive ligands are typically planar, these calculations were also used to compare the shape of the new compounds to two previously published compounds. The results of this study will be described in this presentation.

**Arusoo, Tom**

October – December FY11

Joint SERM/SWRM Regional Meeting

"Synthesis of novel cyclic heterocyclic compounds to interact with higher-order DNA"

Nate Strong, Mike Agius\*, Matt Schaenherr\*, Colin McGee\*, Tom Arusoo\*, Mary Karpen and Toni Rice

Chemistry Department, Grand Valley State University, Allendale, MI 49401.

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**Belprez, Whitney**

October – December FY11

Society for the Scientific Study of Religion 2010 Annual Meeting

"Religious Illiteracy"

The United States is increasingly becoming a global crossroads of religious traditions that impact the culture, politics, and education of its citizens. As religious scholar Stephen Prothero states, this creates "a major civic problem," in America, which is one of the most religious nations in the world, yet is shockingly illiterate about the world's religions. My intention in this paper is to explore the growing problem of religious illiteracy, and argue that religion should be taught in public high schools and universities in the discipline of Religious Studies. I also explain the foundational interdisciplinary approach used in Religious Studies, and why this is the best way to teach religion to secular students. Recent scholarly research as well as current issues and discussions regarding religion inform my argument.

**Blanchard, Andrea**

October – December FY11

Michigan Teachers of English to Speakers of Other Languages (MITESOL): ESL at the Crossroads

## "Refugees Near and Far: What they Need vs. What they Receive"

Refugees come to America to reestablish their lives. A necessity for their full emersion and incorporation into American society is English acquisition. Refugee resettlement agencies address this need but oftentimes their services expire after three to six months. The end of these introductory programs can not guarantee the refugees' full comprehension of the English language, so more must be done.

English language learners often face the English speaking world before they master the language. Adult learners rarely encounter another similar ESL service that reinforces their English acquisition. What they learn in the first six months of their ESL program must provide them with the fundamentals of English that they will need to prosper in the United States. Issues such as these, and the unequal gender distribution within refugee resettlement ESL programs, will be discussed in the presentation, though the emphasis will be on K-12 learners.

K-12 refugee students, too, suffer from inadequate English preparation, and it hinders their opportunities for educational advancement. K-12 teachers need to be aware of the specific needs of refugee students, and they must know how to best address those needs. This presentation primarily explores and attempts to resolve this issue. The investigation of what programming is available both in Michigan and elsewhere for these specific ESL students helps determine what more can be done.

From a first hand experience with the Refugee Resettlement and Immigration Services of Atlanta, and from interviews with representatives from Bethany Christian Services, information is gathered about ESL programs for all ages currently in place for refugees. Their effectiveness is determined and scrutinized. The examination of these programs is the basis for conclusions drawn about an ideal ESL program for refugee students which will be supplied and openly discussed to conclude the presentation.

Dr. Christen Pearson and student Andrea Blanchard

**Buzzell, James**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

"GIS Analysis of Potential Coastal Changes Resulting from Tropical and Extra Tropical Storms near Port au Prince, Haiti"

This research project focuses on mapping and modeling the impact of tropical storms systems off of the coast of Port au Prince, Haiti. Port au Prince is a densely developed city that is relatively low in elevation (elevation ranges from 0 to 100 meters within the study area), and located near the apex of a highly embayed coastline of southwest Haiti. A study was conducted to explore potential impacts on this low lying region following the onset of a rapid rise in sea level due to storm surge associated with tropical and extra tropical cyclones. GIS-based analyses were conducted to evaluate areas potentially inundated by water and short-term changes in shoreline morphology. Data used for the analysis includes Light Detection and Ranging (LiDAR) data, as well as, aerial photos taken between January 17th and January 25th, 2010, in response to earthquakes in Haiti. Results were assembled into a GIS database that includes predictions of land area lost, number of buildings inundated, and percent of population affected, allowing local inhabitants and relief workers to rebuild in a manner compatible with average and extreme tropical weather systems.

**Comeau, Ryan**

October – December FY11

Southern Illinois University Edwardsville Undergraduate Philosophy Conference

"A Discourse on the Phenomenology of Sensory Experience and Dogmatism"

Epistemology is the study of knowledge, but in this field of study there are many ongoing debates. For the purposes of this paper, I am interested in the debates that explore structures of justification rather than theories of knowledge. I intend to look at two of these debates that affect

justification – the “Sellars problem” and skepticism, although the objective of this paper is not necessarily to solve the problems that each of these debates raises for theories of knowledge or justification, especially the latter. My goals are threefold: first, I will explain internalist foundationalism and show how the Sellars problem arises for such an account of justification. Second, I will show how Laurence Bonjour’s account of internalist foundationalism, more specifically his account of the justification of sensory beliefs, seems to solve the Sellars problem. Finally, I will attempt to show how Bonjour’s phenomenological account of sensory experience is more appealing than dogmatist solutions to skepticism.

**Crosby, Andrew**

October – December FY11

Association for Budgeting & Financial Management Annual National Conference

"First Aid for Michigan Municipalities: Band-aids or Tourniquets"

How do local governments react to fiscal instability? Do they make dramatic reductions and tax rate increases? Or do they maintain current expenditures through increased short and long-term borrowing? Using the annual reports collected and posted by the Michigan Department of Treasury we plan to evaluate revenue, expenditure, and borrowing patterns over the past six years (2004-2009) for Michigan municipalities to answer these questions.

**Dalman, Erica**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

"Using a Rock Tumbler in Sedimentology Courses to Simulate Weathering and Erosional Processes"

Educators have suggested using rock tumblers in introductory geology classes at the college level and in K-12 earth science courses to simulate weathering and erosion of pebbles or cobbles,

but we suggest experiments using a tumbler are also useful in sedimentology courses for geology majors. Experiments can be used to demonstrate loss of mass as a function of rock type or degree of lithification as well as to determine effects on grain sphericity and roundness. Tests can be run for several days or weeks with periodic pauses for measurements. Groups of students may develop their own tests, or can be given a general area to study (e.g., grain shape) and then be required to plan the test (e.g., rock types, initial sizes and shapes). In addition to writing lab reports, the groups can give presentations in class. By doing the tests and presentations early in the semester, the instructor can refer back to the results when presenting a variety of topics including intra- versus extraformational origin of clasts, grain shape as a function of distance of transport, and the biased preservation of rock types in clastic rocks.

We found that loss of mass and increase in roundness are predictable when the rocks being compared vary significantly in composition and texture (e.g., granite versus limestone); however, significant variation is observed when comparing different sandstones and limestones due to variation in the degree of lithification. Differences in weight loss between duplicate samples can range from almost zero to several percent depending on the homogeneity of the sample. Using carborundum (SiC) rather than quartz sand for grit accelerates the tests. However, preliminary results indicate the amount of mass lost using the two grits may not be consistent for various rock types perhaps causing difficulty when equating distance of transport in the tumbler to a natural environment in which quartz sand dominates.

Advantages to using a tumbler in a sedimentology course are many: (1) the equipment is inexpensive and simple to operate; (2) the concept is easy to explain and takes little class time, (3) the tests are ideal for group work with each student charged with certain runs; (4) the results are commonly easily plotted and presented in class, and (5) the results can be used throughout the semester to help demonstrate sedimentological concepts.

**Destrades Mendoza, Olivia**

October – December FY11

Michigan Teachers of English to Speakers of Other Languages (MITESOL): ESL at the Crossroads



## "Where Paradigms Intersect: Toward a Unified Theory of SLA"

Research in Second Language Acquisition (SLA) is constantly expanding and evolving, and many theories, hypotheses and models have developed from the three central paradigms: Behaviorism, Innatism and Cognition. However, to date, researchers have been unable to arrive at a single, all-encompassing theory of SLA. While the main theoretical perspectives are often - though not absolutely - considered to be at odds with one another, many of the most compelling ideas that stem from them are, in fact, related and not mutually exclusive. Innativist offerings, such as Chomsky's Universal Grammar (UG), combined with elements of Krashen's Monitor Model, will be tied to emergentist and cognitive perspectives, including work by Ellis and Larsen-Freeman and recent data regarding Dynamic Systems Theory, resulting in the proposal of a new unified theory of SLA. Finally, implications and practical applications for ESL classrooms will be addressed.

### **Eben, Mariel**

October – December FY11

North American Case Research Association (NACRA) 2010 Annual Meeting

## "Georgie's Consignment Shop: Inventory and CRM Practices"

Georgie's Consignment Clothing opened in 1981, when resale shops were just beginning to appear around the country. Located in a historic Post House, Georgie's attracts shoppers and consigners from across West Michigan. Readers of both "On the Town" and "Grand Rapids" magazines have recognized Georgie's as the best consignment shop in the area. Consignment merchandise is held for sale for two months and priced at one-third of the retail price, or one-half of the retail price if the items have original sales tags. In 2009, Georgie's had revenues of \$700k and paid out one-half of revenues to consigners.

Within the consignment industry, there is a splurge of competitive growth across the nation. Women's suits are no longer in vogue, thus reducing the traditional high price-points retailers

have historically exploited. To catalyze growth, Georgie's needs to increase its consignment inventory and capitalize on its excellent customer service. Traditional methods, such as advertising coupons, have proven ineffective. The current inventory system is completely manual and centers around an organization of color-coded index cards and tags. The case seeks to analyze whether the implementation of technology, namely an inventory management system and customer relationship management, will be a helpful and profitable investment for Georgie's Consignment Shop. The case shows how inventory and customer retention processes can prove to be either outdated or competitive advantages. For example, is color coding the inventory and manually sorting clothes based on the date they were received still effective? Is it enough of a competitive advantage to personally know your customers?

The subsequent Instructor's Manual addresses suggested teaching approaches, student discussion questions and answers, an instructor's chalkboard diagram, a process flowchart, and a TOWS analysis (similar to a SWOT analysis).

**Greene, Erik**

October – December FY11

Intellectbase International Consortium Academic Conference

"Applied Entrepreneurialism in a Communication Program: A Case Study in Green Internships"

In this article, the authors assess the use of a green startup business in providing internships for a communications program at a regional Midwestern university. Their experience in the use of an entrepreneurial startup internship as part of the requirement for an integrated advertising/public relations major program revealed five faculty/student assessment outcomes in this undergraduate setting: institutional commitment to entrepreneurship and sustainability, establishing the pedagogical legitimacy of entrepreneurial learning, faculty involvement, faculty motivation, student selection of assignments and evaluation. Their results indicate that entrepreneurship assignments provide a unique opportunity for education in a communications program while helping to promote the University's goals of relevant sustainable practices. With this article, the authors try to explain the anticipated outcomes using the experience in placing interns as part of

the requirement for an integrated advertising/public relations program. Being an individual case, communication instructors are directed to use the information considering the limitations of this qualitative study. For this paper, applied entrepreneurialism is defined as independent study experience where students engaged in sustainability activities via a course experience for credit that includes both elements of entrepreneurship, a focused application of communications skills and an increased regard for the relationship between economy and environment.

**Hansen, Nathaniel**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

"The geomorphic and environmental settings of known archaeological sites in the Lower Grand river Valley, Ottawa County, Michigan"

To predict undiscovered archaeological sites in the Lower Grand River, we mapped known archaeological sites using color and infrared aerial photos, digital raster graphics, and digital elevation models. We interpreted the geomorphic and environmental settings of sites using this preliminary geographic information system. We found both spatial and temporal patterns in site location.

The Lower Grand River valley is cut into Quaternary glacial sediments that formed during the retreat of the Laurentide ice sheet ~16,000 to 13,000 14C years before present (B.P.). Initially the glacial Grand River was graded to Glacial Lake Chicago. Next, the Grand River incised due to the Chippewa low stand ~9,000 14C B.P. The first inhabitants were the Paleo-Indian culture which occupied the valley ~11,000 14C B.P. By 10,000 14C B.P. the climate of the region supported deciduous forests. This corresponds with the start of the Archaic period, which ended ~2,500 14C B.P. Between ~6,000 and 5,000 14C B.P. a transgression inundated much of the Lower Grand River Valley during the Nipissing high stand. By ~4,000 14C B.P. Lake Michigan had reached its current level resulting in down cutting of the Grand River. The evidence for this is a stream terrace at elevations between 590 and 610 feet a.m.s. For the last 4,000 years the base

level of the river has stayed relatively the same, and lake levels have fluctuated by about two meters. The following Woodland (~3,000 to 400 B.P.) and Historic periods had a climate similar as present, with much less variation than during deglaciation.

The frequency of sites decreases from higher elevations to lower elevations. Younger sites are more common than older sites. Paleo-Indian sites occupy uplands near the Grand River and stream terraces. Archaic sites exist on the uplands near the river, and deglacial to middle Holocene stream terraces. Woodland sites are found on all pre-settlement surfaces. Historic sites exist on uplands and the modern flood plain. The high number of sites located on the uplands suggests that they should be the focus of future archaeological investigation. Most of the sites are associated with resource gathering and camps, while larger more permanent settlements were located on alluvial surfaces within the valley. The type of geomorphic surfaces should be considered in future studies.

Nathaniel Hansen , Patrick Colgan

**Hekstra, Katie**

October – December FY11

2nd Annual Michigan Green Chemistry Conference

"The use of United States Consortia Microbes in an Anaerobic Fuel Cell for the Productions of Energy from Municipal Waste Water"

No Abstract.

**Koeman, Elizabeth**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

"The Impact of Land-Use Changes on Carbon Storage in Small Streams, Ottawa County, Michigan"

By burning fossil fuels and disturbing soils through land use changes such as forestry and agriculture, humans affect the carbon cycle by altering the amount that goes into Earth's atmosphere and the amount stored in sediments. We looked at carbon storage in pre- and post-settlement alluvium in two small tributaries of the Grand River near Allendale, Michigan. Approximately 300 samples from 18 alluvial sections, and 10 vibracores were described and analyzed for texture, moisture content, loss on ignition, and carbonate content. In both sections and cores, a coarse layer interpreted to be stream gravel indicates an unconformity between upper and lower sediment sequences. Two radiocarbon analyses suggest that the lower sediment sequence is as old as mid Holocene in age. Burial of in situ tree stumps and trash indicates that the upper sequence is younger than settlement (~1820 A.D.). Our preliminary analysis indicates that pre-settlement alluvium has a mean organic content of  $5.0 \pm 4\%$  (one standard deviation), while the mean organic content of post-settlement alluvium has a percentage of  $4.1 \pm 2\%$ . The difference in variation between the upper and lower sediments could suggest a different set of processes in organic storage. Our current interpretation of these sediments suggests that the lower sequence is lacustrine or slack water sediments and the upper sequence is alluvial overbank sediment. The radiocarbon ages suggest that the lower sediment sequence formed during the Nipissing high stand when the Grand River and many of its tributaries were flooded. This interpretation could explain the difference in variation between organic carbon content. Work in progress includes dating the upper sequence using Cesium 137 to determine rates of carbon storage.

**Koster, Andrea**

October – December FY11

Midwest Fish and Wildlife Conference

"Diet of Round Gobies in coastal areas of Lake Michigan"

The round goby (*Neogobius melanostomus*) is a species native to the Ponto-Caspian region of Eurasia that was introduced to the Great Lakes in the early 1990's and has since undergone rapid expansion. The round goby is known to consume a variety of prey items from soft-bodied invertebrates to hard-bodied prey such as dreissenid mussels, primarily based on the round goby's habitat use and body size. We hypothesized that round goby: (1) abundance is greater at pierheads than adjacent drowned river mouth (DRM) lakes (which have direct connections to Lake Michigan) because of differences in substrate between the two habitats, and (2) diets at pierheads are primarily comprised of dreissenid mussels based on the size of round gobies and density of dreissenids in the two habitats. To test these hypotheses, we sampled round gobies with baited minnow traps at six sites (consisting of pierhead and adjacent DRM-lake habitats). As predicted, we found significantly higher densities at pierheads compared to the DRM lake habitats. Stomach content analysis was conducted on each sampled specimen by separating the prey types into major taxonomic groups and assessing differences in prey consumption as a function of total prey volume. The results from this study will allow a more thorough understanding of round goby population distribution and habitat use in coastal areas of Lake Michigan.

**Larsen, Angela**

October – December FY11

The Wildlife Society Annual Conference

"Effects of forest thinning on predator-prey relationship between white-footed mice and gypsy moth pupae in west central Michigan"

White-footed mice (*Peromyscus leucopus*) are a main predator of gypsy moth (*Lymantria dispar*) late-stage larvae and pupae. This study will investigate whether these predation rates are different between areas subjected to different forest thinning methods and whether there are other small mammal species contributing to these predation rates. Two sites undergoing forest thinning for oak savanna restoration in the Manistee National Forest in Lower Michigan will be monitored and compared. One site, Pines Point, was thinned with downed wood piled while the other site, Hayes Road, was thinned with downed wood left where it fell. There are five

experimental replicates at each site that consist of four 2 acre plots; 3 treated with separate mechanical tree thinning techniques (masticator, bulldozer, shearcutter), and a control plot. Small mammal trapping and gypsy moth egg mass counts will be conducted to estimate abundance and density of both of these populations. Predation rates on gypsy moth pupae will be measured by monitoring live pupae placed in the field. Track plates and teeth marks will be used to identify the mammalian predators involved. Predation rates are expected to be different between sites, but not between thinning techniques. The results will aid forest managers in choosing thinning methods when keeping gypsy moth populations at low densities is a priority.

### **LeBar, Dana**

October – December FY11

American College of Sports Medicine Annual Meeting (Midwest Chapter)

"Hydration strategies and change in body mass during pre-season two-a-days in female college soccer players"

Introduction: Fluid loss and dehydration can negatively impact physical performance, skill execution, and at severe levels cause physical harm. Sports camps held during summer months are associated with significant body mass and fluid loss through sweating, which therefore places increased emphasis on maintaining adequate hydration. Purpose: To monitor hydration strategies and changes in body mass as a result of pre-season two-a-days in college soccer players.

Methods: 16 female DII soccer players ( $19 \pm 1$  yrs;  $1.68 \pm 0.03$  m;  $64.8 \pm 7.5$  kg) were monitored during a morning and subsequent afternoon training session. The previous night participants ingested a telemetry sensor for recording of core body temperature (Tint). Prior to each session, body mass (BM) and dry uniform weight were determined, Tint was measured, and the environmental conditions were taken. Participants were free to drink water and a commercially available 6% carbohydrate sports drink ad libitum. During each break between drills, Tint, heart rate (HR), and environmental conditions were recorded. At the end of each session, Tint, HR, BM, wet uniform weight and volume of both water and sports drink consumed were determined. Statistical analyses were performed on select within and between-session variables using paired t-tests. Results: There were no differences in both Tint and HR between sessions. More total

fluid was consumed in the morning compared to the afternoon ( $1.11 \pm 0.39$  L vs.  $0.81 \pm 0.35$  L;  $p < 0.05$ ), but there were no differences in type of fluid consumed, either between or within sessions. Net BM loss was greater in the morning compared to the afternoon ( $1.7 \pm 0.4$  kg vs.  $1.4 \pm 0.2$  kg,  $p < 0.05$ ), which equated to  $2.7 \pm 0.6\%$  and  $2.2 \pm 0.4\%$  net BM loss, respectively. Overall, there was a net BM loss of  $2.8 \pm 0.5$  kg ( $4.4 \pm 0.7\%$ ) across the whole day. Conclusion: The hydration strategies used failed to offset marked session-specific and daily body mass losses encountered during soccer pre-season two-a-days performed in a moderate heat stress environment. Further research is needed to elucidate the impact on acute hydration status and of consecutive two-a-days on chronic hydration status in college soccer players.

Matthew T. Wittbrodt<sup>1</sup>, Dana K. Lebar<sup>2</sup>, & Ross A. Sherman<sup>2</sup>

<sup>1</sup>Western Michigan University, Kalamazoo, Michigan; <sup>2</sup>Grand Valley State University, Allendale, Michigan

**McGee, Colin**

October – December FY11

Joint SERM/SWRM Regional Meeting

"Synthesis of novel cyclic heterocyclic compounds to interact with higher-order DNA"

Nate Strong, Mike Agius\*, Matt Schaenherr\*, Colin McGee\*, Tom Arusoo\*, Mary Karpen and Toni Rice

Chemistry Department, Grand Valley State University, Allendale, MI 49401.

Higher-order DNA conformations can form within regions of DNA that are rich in guanines. Telomeric DNA is located at the end of human chromosomes, is guanine-rich and can fold into tetraplex DNA. Compounds that should interact and stabilize telomeric DNA are being developed. Increased binding affinity and selectively over duplex DNA is a long-term goal of this work. The convergent synthesis of novel, cyclic, heterocyclic compounds will be described. The intermediate monomeric units were synthesized using a building block approach involving



acid chloride-amine coupling reactions. The final cyclization reaction was achieved via the use of peptide coupling reagents in combination with the cation template effect. Quantum mechanical calculations were used to help select the appropriate template ions for use in the synthesis. As tetraplex interactive ligands are typically planar, these calculations were also used to compare the shape of the new compounds to two previously published compounds. The results of this study will be described in this presentation.

**Miller, Diane**

October – December FY11

International Conference on Civic Education

"Using Spatial Technologies to Build Sustainable Garden Networks in Muskegon MI: a University and Community Collaboration"

According to the American Community Gardening Association, community gardens are important for improving the quality of life for people in all walks of life through recreation, exercise, therapy, education, and the production of nutritious foods. Community gardens also beautify neighborhoods, increase green space, create income opportunities, and stimulate intergenerational and cross-cultural relationships. The purpose of this study was to investigate the different structures and processes within Muskegon County community gardens, and provide a communication mechanism to share best sustainable practices. GPS-enhanced digital cameras and other Global Positioning Systems (GPS) technology were used to identify and map the locations of community gardens. Geographic Information Systems (GIS) technology was used to, store, analyze, organize and display the data as dynamic thematic maps. A survey was conducted to investigate the structure of each garden. These datasets proved valuable for planning future community garden activities in the Muskegon community, and helped improve gardeners understanding of the community garden network infrastructure. Building a network of community gardens enhanced existing networks, and created new ones. Integrating spatial and web technologies connected the current Muskegon community gardens and gardeners by introducing visual components to aid in collaborative problem-solving of a variety of garden and food issues. Shared public information was efficiently disseminated via a newly built website

that encouraged the use of free internet communication software (Google talk, Picasa, Skype, Facebook, Twitter, and Google mail) to provide information on soil, water management, plant selection, pest management, etc. Encouraging collaboration and communication among gardeners using GPS, GIS and ICT through a web interface provided a unique virtual space for people with similar interest's to improve the physical, social, cultural and economic health of each neighborhood.

### **Nadvar, Negin**

October – December FY11

Biomedical Engineering Society (BMES) Annual Meeting 2010

#### "A Novel Technique for Frequency Domain Analysis of Heart Rate Variability"

Conventional frequency domain analysis of heart rate variability (HRV) in vivo uses tachograms computed as interbeat interval vs. beat number. Inferences drawn from this analysis are flawed since it ignores the effects of non-uniform sampling. We compared the conventional technique (interbeat interval vs. beat number, CT) to a novel technique (interbeat interval vs. time of occurrence of beat, NT) for the frequency domain analysis of HRV. Guinea pig hearts (n=6) were perfused at a constant pressure of 55 mmHg with Krebs-Ringers (KR, 37°C) solution. After 30 min baseline (BL) stabilization, hearts were subjected to 30 min global ischemia and 120 min reperfusion (REP). Bipolar electrograms were recorded from the right ventricle for 4 min each at BL, and after 0 min (REP00), 60 min (REP60), and 120 min (REP120) of REP. Tachograms were computed using CT and NT. For CT the estimated sampling frequency ( $f_s$ ) = 1 Hz and for NT tachograms were interpolated to  $f_s$  = 40 Hz. We computed: a) total power (TP, 0.04-0.4 Hz for CT and 0.12-16 Hz for NT), b) ratio of power in low frequency (0.04-0.15 Hz for CT and 1.6 to 6 Hz for NT) to high frequency (0.15-0.4 for CT and 6 to 16 Hz for NT) (LF/HF). Results showed: i) during REP00, TP increased more with NT than CT, ii) LF/HF showed no change after REP with CT. Conversely, as noted in vivo, LF/HF decreased after REP with NT. In conclusion, frequency domain analysis of HRV using NT, and not CT, were comparable to in vivo results emphasizing the need to correct for errors due to nonuniform sampling when analyzing HRV in the frequency domain.

N. Nadvar<sup>1</sup>, B. E. Dunne<sup>1</sup>, J. Heisner<sup>2</sup>, A. K. Camara<sup>2</sup>, D. F. Stowe<sup>2</sup>, and S. S. Rhodes<sup>1,2</sup>

<sup>1</sup>Grand Valley State University, Grand Rapids, Michigan, <sup>2</sup>Medical College of Wisconsin, Milwaukee, Wisconsin

**Norris, Rebecca**

October – December FY11

The Wildlife Society Annual Conference

"Predicting habitat quality for Bobcats in Michigan's Southern Lower Peninsula using non invasive detection methods"

While bobcats (*Lynx rufus*) historically ranged throughout the entire US, in the past 150 years persecution and habitat loss have created a noted absence of bobcats in the Midwest. In recent years, they have begun to make a comeback in these highly fragmented areas. Little is known about how bobcats use sub optimal habitat in the Upper Great Lakes Region, particularly in Michigan's Southern Lower Peninsula. This study used non-invasive track station and camera trap data to analyze bobcat habitat use on a regional scale. Track stations were created and camera traps were monitored in three counties in South Central Michigan. Logistic regression was used to create a model for predicting bobcat occurrence based on regional scale land cover factors. This model was then applied within a Geographic Information System (GIS) for the Southern half of Michigan's Lower Peninsula. Land cover variables that proved to be most important were the proportion of wetlands and proportion of forest present within a home range sized area. Models from other areas in the Midwest will also be applied to Southern Michigan and location data collected from this study will be used to evaluate the suitability of these previously created models for use in habitat delineation in Southern Michigan.

**Schenk, Samantha**

October – December FY11

National Women's Studies Association (NWSA) Annual Conference

"Activist Identity Development Through the Lens of The Vagina Monologues (Individual Paper); From the Stage to the Streets: Feminist Performance and the Call to Activism (Panel)"

Panel Title: From the Stage to the Streets: Feminist Performance and the Call to Activism

Panel Abstract: One of the central themes of feminism, generally, and Women's Studies, specifically, is the concept of praxis—the practical application of feminist theory into the world at large. While the classroom provides a myriad of opportunities to engage students and would-be activists in this endeavor, sometimes the most salient experiential learning occurs outside of the classroom. Feminist performance is one such conduit for feminist praxis. This panel will examine the ways that feminist performance engages both performers and audiences in raising awareness about feminist issues. The panel will examine the power of feminist performance as a tool of praxis or activism itself, as it inspires and enables a shift in awareness and consciousness to enact future actions toward positive social change.

Paper Title: Activist Identity Development Through the Lens of the Vagina Monologues

Paper Abstract: Opening the minds of both participants and audience members, The Vagina Monologues has been met with both controversy and life-changing anecdotes. The production provides creative expression while igniting difficult dialogue related to gender inequality for communities and college campuses. However, little research has explored the specific impact of either viewing or participating in the production. We seek to examine the experience from a student development perspective of activist identity. Specifically, what are their values of social change through participation, as well as what is their journey of involvement prior, during, and after production in relation to their activist identity development.

Presenters: Samantha Schenk & Ashley Nickels

## **Siemer, Kyle**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

### "Clogging of a Landfill Drainage System in Southern Kent County, Michigan"

The Southern Kent County Landfill is a non-hazardous waste facility with a confined drainage system, which acts as a barrier to migration of landfill leachate into the subsurface environment. Solid municipal waste (MSW) is stored at the landfill, and is located adjacent to a fly-ash pit of incinerated waste. Over time, the drainage system becomes clogged with a precipitate designated as bio-rock. Collaboration between GVSU and Kent County was initiated in order to understand and alleviate the clogging problems.

The first stage of research involved evaluating the chemical and mineralogical composition of the bio-rock. The bio-rock that clogs the pipes is constructed of layers of calcite ( $\text{CaCO}_3$ ) separated by algal or fungal mats (with perhaps another mineral or two that washed away during thin sectioning). The calcite formed as equant and plumose crystals: plumose morphology indicates very rapid growth. Analytical techniques used to identify the materials in bio-rock include effervescence in dilute HCl, polarizing microscopes, SEM, XRD, and EPMA.

A set of experiments was designed during the second phase of research to force precipitation of the bio-rock under controlled conditions. The genesis of the bio-rock was the focus.

Experiments were guided by field observations: bio-rock forms where leachate from the fly-ash pit and the MSW landfill mix, and where a black organic slime is found. X-Ray diffraction analysis of the seven precipitate samples yielded results consistent with preliminary analysis: calcite, sylvite, and halite crystallized.

During preliminary X-ray diffraction analysis interpretation by hand, it appeared that one of the precipitates was a zeolite. Though this was an incorrect identification, it indirectly redirected the research focus. The landfill and fly-ash pit are by nature rich in Ca and  $\text{CO}_2$  and the

combination of these, calcite, is almost inevitable at the Earth's surface. Finally, we designed an experimental exchange column in which Ca-rich fly ash leachate passes through a column of Na-rich zeolites in order to induce a reaction, pulling Ca out of solution and thereby hindering the formation of bio-rock. Results are encouraging as leachate samples containing >1000ppm dissolved Ca are reduced to 0 ppm.

### **Walters, Kent**

October – December FY11

Geological Society of America Annual Meeting & Exposition 2010: Reaching New Peaks in the Geosciences

"Amounts of Organic Carbon Stored in First and Second Order Streams in Ottawa County, Michigan"

The goal of this study is to determine and compare amounts of stored organic carbon in first and second order alluvial streams in Ottawa County, Michigan. Land use change, fires, logging and agriculture, impact the amount of stored carbon in stream sediments and ultimately in our atmosphere. We hypothesize that stream order could affect carbon storage in small streams. Stored carbon percentages were determined using the loss on ignition method. Over 200 alluvial sediment samples in 18 different locations were analyzed for organic carbon content. Roughly the same amounts of samples were taken from each stream order. All the samples were collected approximately equidistant from one another, beginning at the head of the stream and continuing to the mouth. In first order streams, the mean percent organic carbon is  $3.8 \pm 2.3$  (one standard deviation). In second order streams, the mean percent of organic carbon is  $4.3 \pm 2.2$ . While there is little difference in organic carbon content between first and second order streams, a closer examination of the data suggests that second order stream sediment is skewed towards the high end of the range of organic content in the samples we analyzed. One sample site located near the Grand River (a much higher order stream) had some of the highest organic carbon contents measured.

These preliminary data suggest that higher order streams could have a greater capacity to store organic carbon than do lower order streams. In future studies we will examine larger streams in order to further test this hypothesis. Grain size, stream gradient, oxidation reduction processes and many other factors could both explain and complicate the relationship between percent stored organic carbon and stream order.

**Whitmer, Jonathan**

October – December FY11

Midwest Popular Culture Association Annual Conference

"William Blake in 20th Century Popular Music"

William Blake communicated his ideas about the human experience, the supernatural and religion, morality, politics, and the role of the artist through poetry that invoked a rich symbolic mythos that prefigured by almost two centuries the radical artistic innovations of the 20th century. The appropriation of his poetry in 20th century popular music and poetry reflects the affinity between his thinking and postmodernity as manifested in Blake's rejection of the Enlightenment rationalism, his elevation of imagination, his polemic use of visceral artistic expression, and his rejection of the conventional moralism of established religion.

U2's landmark album, *The Joshua Tree*, which the band had originally considered beginning with an adaptation of Blake's "Introduction to Songs of Experience", exemplified a thematic approach similar to Blake's *Songs of Experience*, with its focus on social and political criticism. Terry Scott Taylor and his band, Daniel Amos, also exhibited significant Blakean influences during the same time period in their use of the Blakean theme of contraries on numerous songs during the same time period. This willingness to critique the status quo—both among conservative political thought and among a reductionist religious subculture—parallels Blake's own criticism of the Enlightenment project (for its optimistic rationalism) and the established church (for its tendency toward legalism, exploitation, and hypocrisy). Likewise, poets/lyricists as diverse as Bob Dylan, Allen Ginsberg, Van Morrison, The Doors, and Patti Smith, for

example, have found inspiration in Blake's poetry. This paper studies the extensive intertextuality linking Blake's poetry with popular music and poetry from the 20th century.

**Wilson, Michael**

October – December FY11

The American Society for Cell Biology 50th Annual Meeting

"Construction and use of viral Nato3 overexpression vector in the developing neural tube of Gallus gallus"

No Abstract.

**Yonkman, Jenny**

October – December FY11

National Council of Teachers of English: Teachers and Students Together: Living Literate Lives

"Advocating for Engagement: Teachers and Students Living Literate Lives Online"

This presentation will describe the practical ways that two middle level educators designed novel studies to include online discussions. Online discussions engaged students with the texts in new ways, enhanced student interest and comprehension, and created opportunities for meaningful talk.