

## 2005 Graduate Research Symposium Abstracts

### **Using a Database to Eliminate Hard Code in a Total Quality Management System**

By: Tara Aitken, Sarah Aslanifar

Information Technology

Faculty Matthew Kuoffe

Total Quality Management (TQM) is a structured system used to provide satisfaction among internal and external customers of the business. The TQM system works continuously to provide quality amongst customers by constantly improving the organizational aspects of business. When implementing a TQM system it is very important to determine where the data will be stored. Hard coding the data is not an ideal way to store the data; this method of data storage is a problem for several reasons. One of the most obvious reasons is once something is hard coded it cannot easily be altered later in the process. In order to fix this data storage problem, we have proposed a "Using a Database to Eliminate Hard Code in a Total Quality Management System." This system uses a database to store and access the information which was previously hard coded. The benefits of this system are as follows: 1) Using a database, the information will be readily available to the developer(s) at any time, and 2) will also be easy to manage and update if necessary.

### **Aggressive Tendencies, Agreeableness, and Responses to Conflict**

By: Tulin Akin

Psychology

Faculty Renee Tobin

Personality affects children's social interactions and how they perceive their everyday experiences. A widely accepted approach to conceptualizing and measuring personality recognized by past research is the Big Five, which identifies five major dimensions of personality: openness to experience, conscientiousness, extraversion, agreeableness, and emotional stability/neuroticism (Goldberg, 1992). Past research has also examined individual differences in personality as they relate to children's conflict solving capabilities (Jensen-Campbell & Graziano, 2001). The present study examines if an individual's personality characteristics, in particular agreeableness and aggressive tendencies, can be linked to differences in children's behavior. Past research indicates aggression has significant negative correlations with agreeableness (Ang, 2004). The present study extends this line of research by examining the relationship between aggression and agreeableness and both of these variables as predictors of children's responses to conflicts and the solutions they choose. Further, the study addresses whether the presence of a parent instructed in Gottman's five steps of emotion coaching is related to how children rate solutions to conflicts. More specifically, one parent per child participant was randomly assigned to either a no instruction control condition or an emotion coaching condition in which parents were instructed to follow Gottman's five steps of emotion coaching (Gottman, 1997). Following this manipulation, child-parent dyads discussed and rated solutions to typical child conflict situations. In addition, parents and children also completed the parent version of the Behavior Assessment System for Children (BASC-PRS; Kamphaus & Reynolds, 1992) and the Big Five Inventory (BFI; John & Srivastava, 1999) to assess aggressive tendencies and agreeableness, respectively. It is hypothesized that agreeableness and aggressive behaviors will be inversely related. It is also hypothesized that agreeableness and aggressive tendencies will predict children's responses to conflict situations. More specifically, children who are high in aggression and low in agreeableness will choose less pro-social solutions to the presented conflicts. These and other hypotheses will be presented.

### **Hospice Barriers: Exploring Short Term Admission to Hospice Care**

By: June Allison

Social Work

Faculty Kathy Wehrmann

Delayed entry to hospice is a problem occurring across the nation. Hospice offers patients with a six month or less terminal diagnosis a wide range of services for comfort and palliative care. However, terminal patients are increasingly not taking full advantage of services by delaying entry to hospice until their last week of life. Literature reveals this trend is nationwide and has become more pronounced in the past ten years. At this time, there is limited published research addressing the concerns of delayed entry. In 1982 the Hospice Medicare Benefit was enacted to allow everyone in Medicare access to hospice services. While no curative measures are offered, hospice services help patients to remain in their own home and current living arrangements. Hospice enables patients and their families to live more fully and appreciate a higher quality and comfort in their lives. Short term admission of one week or less does not allow hospice to fully integrate their services, and therefore valuable time for quality of life is lost.

At DMH Hospice (Decatur Memorial Hospital) in Decatur, Illinois, terminally ill patients are following the trend of delayed hospice entry to 7 or less days before the end of life occurs. In their recent fiscal year, the problem reached almost 30% of deceased patients in the program. This study is a secondary analysis in which information is being collected from onsite files of all patients that died within 7 days upon admittance to DMH Hospice during the year of November 1, 2003 through October 31, 2004.

Using a Microsoft Excel spreadsheet as the instrument, variables will be redacted for demographics and those variables deemed relevant to the agency. Using SPSS, a computerized Statistical Program for Social Sciences, frequency analysis will explore the data and review relationships and shared commonalities. Descriptive analysis will be applied to nominal data through implementation of SPSS. The analysis will measure the codified variables to compare and examine for the study. The researcher will use the analysis to explore relationships between variables. While results of this study cannot be generalized to all hospice agencies, DMH Hospice will review the study's findings and analysis to determine if there are areas in their agency that can be modified and improved. Earlier access to hospice care for terminally ill patients provides comfort and the opportunity for increased quality of life until death occurs.

### **Associations Between Family Context, Attitudes, and Violent Behaviors in Sibling Relationships**

By: Melissa Ator-Murphy

Psychology

Faculty Marla Reese-Weber

One hundred and thirty-six college students (ages 18 and 19) enrolled at a Midwestern university participated in this study. The participants were asked to complete a series of questionnaires that assessed attachment styles, and exposure to parent-child, sibling, and marital violence. In addition, the Attitudes of Interpersonal Violence Scale was used to assess adolescents' definitions, acceptance, and tolerance for sibling violence.

The first hypothesis is that participants who report being exposed to parent-child or marital violence are more likely to have accepting attitudes of violence than participants who report less exposure to parent-child or marital violence. The second hypothesis is that participants who report having less secure attachment styles will have more accepting attitudes of violence than participants who report having more secure attachment styles.

The third hypothesis is that participants who report having accepting attitudes of violence are more likely to report more violent sibling behaviors than participants who report less accepting attitudes of violence. Therefore, attitudes are expected to mediate the relationships between attachment, exposure to marital violence, exposure to parent-child violence and violent sibling behaviors.

Implications of the findings will be discussed.

### **"Fighting Terror": America's Justification For Repressing Anarchist Thought Between 1886 and 1914**

By: Joseph Baker

History

Faculty Lee Beier

President William McKinley was shot by Leon Czolgosz on Sept. 6, 1901 and; the president died eight days later. The reaction by McKinley's successor, President Theodore Roosevelt, and other lawmakers was to create anti-anarchy laws, such as the Criminal Anarchy Act of 1902. The dominate viewpoint of contemporary scholars holds that the enactment of laws, like the criminal anarchy act, were unprecedented attempts by the government and ruling elites to try and eliminate a burgeoning anti-capitalistic movement in the United States. In actuality the lawmakers had complete precedence for their policies—based on cases of law and worldwide political

### **The Legacy of John Brown: The Death of a Man, Birth of a Legend**

By: Edward Banks

History

Faculty Lee Beier

I plan to present on a essay which chronicles the historical and cultural significance of John Brown. In this paper it is my overall thesis that John Brown did more for the cause of abolition in failing at Harper's Ferry than he could have done in success. I use several primary and secondary sources to analyze exactly how society viewed Brown's action. I look at both the northern and southern responses, as well as those from black and white audiences. I hope to in this paper discover what effect Brown's raid had on these particular groups and on American history as whole.

### **Students' Understanding of Indeterminate Forms**

By: Bradley Beauchamp

Mathematics

Faculty Jim Cottrill

One important application of the derivative in calculus is its use in determining the limit of a rational expression that has the form zero divided by zero. This situation is termed a limit in indeterminate form. Calculus provides a rule that allows us to resolve this situation by considering the derivatives of the numerator and denominator of the rational expression. Students often have difficulties in understanding why this rule works. These difficulties could be the result of students' shallow understanding of indeterminate forms. This research is an attempt to describe what understanding students have of indeterminate forms. In particular, it is desired to determine whether students recognize indeterminate forms simply through rote memorization or through rich mathematical connections. Further, this study attempts to describe a spectrum of students' conceptions of indeterminate forms and discover what depth of mathematical connections is associated with those conceptions.

Data were collected in the form of written tasks in an interview setting. Participants in the study included six current Calculus II students. The interview sessions were audio and video-taped and all written student work was collected. The tasks and interview questions were designed to develop a picture of what understanding students may have of indeterminate forms and to what degree that understanding is connected to relevant topics in calculus. While students were working on the tasks, the interviewer asked questions to probe what students were thinking as they worked. The data will be analyzed to determine common errors, misrepresentations, and misunderstandings that students make when working with indeterminate forms.

The following research questions guide the study:

1. What understanding do students have of indeterminate forms?
2. Have students related division by zero to indeterminate forms?
3. What relationship do students see between limits, indeterminate forms, and L'Hopital's Rule?

These research questions are informed by a particular theory of learning, as was the interview protocol. Data analysis will also proceed according to this theoretical framework. The results from this study should aid in describing the knowledge that students have of indeterminate forms, and possibly illuminate where students' misconceptions might lie. In addition, this study will add to the existing literature pertaining to students' understanding of calculus concepts. Further, the findings may aid in developing instructional techniques that bring students to construct richer connections between calculus topics.

### **Transracial Adoption: Services Needed Before and After**

By: Natalie Berg

Social Work

Faculty Jim Raines

### **Transracial Adoption: Services Needed Before and After**

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The purpose of this study was to find out what services are needed by families who adopt transracially both before and after the adoption. Adoption agencies and the families they serve can both benefit from the results of the study because adoption caseworkers learn how to serve their clients more effectively. The participants were drawn from a list of couples from a Central Illinois agency who adopted transracially between 1990 and 2005. Sixty-seven couples were mailed open-ended surveys. The survey included questions regarding the quality of pre and post adoption services available and overall satisfaction with the agency. The participants' answers were analyzed by searching for common themes. Adoption professionals and adoptive families must realize that services may need to continue past the adoption finalization. The results of the study emphasize the importance for caseworkers to help families adjust to the changing family dynamics associated with adoption and resolve any future conflicts that may arise.

### **Leisure Satisfaction of Older Adults**

By: Kat Broughton

Kinesiology and Recreation

Faculty Brent Beggs, Amy Hurd, Sandra Klitzing

The purpose of this study is to examine differences in leisure satisfaction of older adults based on gender, age, marital status, self-rated health, ability to drive, housing type and whether a person is living alone. The instrument to be used in this study is based on the short version of the Leisure Satisfaction Scale (Beard and Ragheb, 1980). It consists of two sections and a total of 32 items and will take less than 10 minutes to complete. The first section consists of the 24 items of the short version of the Leisure Satisfaction Scale and the second section consists of eight demographic/grouping variables. This sample of this study will consist of adults over the age of 65 that participate in senior activities at four community centers in Bloomington, Normal, and Champaign. A sample size of 200 older adults is desired so groups can be compared using ANOVA and t-test procedures. Arrangements will be made with directors of the community centers to administer the questionnaire during regularly scheduled senior citizen activities. One of the researchers will administer the questionnaire and briefly explain the procedure. The researcher will stay in the room while questionnaires are being completed and will collect them when completed. At no time will the individuals be identified in this study as that information will not be collected and findings will be represented by groups. Data from completed questionnaires will be analyzed using SPSS.

### **A Plan Vs. B Plan**

By: Erica Bumpers

Educational Administration and Foundations

Faculty Al Azinger

One of the most misunderstood areas of educational research is the declining number of African Americans enrolled in higher education.

There has been an increase of African Americans obtaining high school diplomas, but a significant decrease in the percentage of African Americans that do not enroll in college after high school (Lang, 1992). This continues to remain a constant and disturbing problem across the country because many assumptions have been made as to why African Americans either attend college or don't. The primary goal of education has been to provide all students access to a quality education along with instilling the values of society, in hopes of every student enrolling in a post secondary education. The problem has been highly recognized as inequity in the American educational system. Schools predominantly consisting of African American students, confront these conditions from an educational system that is unequal and failing its clients. According to Darling-Hammond (1990), students from racial, low-income, and ethnic minority groups in the United States have less access to school resources, inadequate course offerings, low educational expectations, and under-prepared teachers (Rendon & Hope, 1996), in addition to facing persistent barriers to educational opportunities that continue to be separate and unequal. Further, the educational experiences of African Americans' must be examined to begin understanding why some choose to attend college and others don't.

For instance, African American students have been classified into special education classes, tracked throughout their school experience and labeled at risk for many years throughout the United States (Hale-Benson, 1986; Hilliard, 1976; Oakes, 1996). However, some African Americans students are not afforded the opportunity of having equal access to college or universities because of the quality of education they have received. More importantly, these students do not attend college because of issues pertaining to parents' income and educational attainment level, along with poor academic preparation for college. In most cases, these factors impact college access for African Americans, opportunities for employment, as well as increased career mobility and economic advancement (Fuller, 1981; Orfield, 1992). Furthermore, there are African American students who attend colleges and universities, regardless of their parents' socioeconomic status, race, and lack of inequity within certain schools. While the literature on African American students attending college is immense, there have been shortcomings that do not specifically, explain or give voice to what influences them to attend

### **Recruiting Pregnant and Parenting Adolescents to Participate in Research**

By: Jil Bush, Tracey Drzal

Psychology

Faculty Adena Meyers

The purpose of this study is to explore challenges encountered when recruiting pregnant and parenting adolescents through local agencies and schools to participate in research. Local agencies and school districts were contacted to assist with recruitment efforts for a study examining the self-efficacy of adolescent mothers. They were asked to agree to distribute informational pamphlets about the study to their adolescent parent population. If the agency agreed to do so, the adolescent parents were then responsible for contacting the researchers if they were interested in participating. Data will be presented on which types of settings were most cooperative in agreeing to distribute the pamphlets, which types of settings were most successful in referring possible participants, and what percentage of the interested participants followed through with the data collection phase of the study. Additional information will be presented on specific obstacles to recruitment and data collection with this population. This data will provide future researchers attempting to recruit pregnant and parenting adolescents with information regarding what types of settings to contact for assistance and what challenges to expect during recruitment and data collection with this population.

### **Factors Related to Psychiatric Hospitalization in Emergency Crisis Situations**

By: Sylvia Cassady

Social Work

Faculty Kathy Wehrmann

The McLean County Center for Human Services Emergency Crisis Intervention Program aims to assist individuals in accessing the most appropriate and least restrictive level of care available. Therefore, one of the program's goals is to provide services without the need for hospitalization. Using secondary data, an outcome evaluation will determine how many individuals seen by the Crisis team are psychiatrically hospitalized, and what factors are taken into consideration when making this decision.

The dependent variable (obtained from the crisis contact note) studied is the resolution of the case (whether the client was hospitalized). The independent variables collected in this study were also obtained from the crisis contact note and include demographic information, a referral source, the situation for coming into contact with the Crisis Team, substance abuse issues, and contracting. Demographic information included age, gender, and race.

The sampling frame included any record of an individual, over the age of eighteen, coming into contact with the Crisis Team during FY 2003. Fifty cases were randomly selected from the crisis team contact note database. Data will be compiled and analyzed through the use of SPSS software. A descriptive univariate analysis on each variable will be completed. Bivariate analysis with contingency tables and chi-squares will also be completed to examine the relationship between the dependent and independent variables.

Data collection for this study is currently in progress. However, previous studies identified several variables that were important in disposition decisions regarding psychiatric hospitalization. Factors such as 'danger to self' and 'depression' have been reported to be associated with disposition. Previous research also suggests that twenty-seven to thirty-four percent of individuals seen by a crisis team are placed in an inpatient psychiatric setting.

Making the decision to hospitalize can have serious effects on the individual, the family, and the community. Inappropriate admission to the hospital may be stigmatizing and disturbing to an individual. Inappropriate release, however, may lead to an increased risk of suicide, increased burden on the support system, increased deterioration of functioning, and violence towards others. Based on the results of the study, the Center for Human Services may be able to formulate guidelines specifying important dimensions in clinical assessment and reduce inappropriate admission to the psychiatric unit can be avoided.

### **Towards the Asymmetric Synthesis and Isolation of Enantiopure Amines: chiral substrates to NPS-R-568(r), Parathyroid Gland Cell Surface Calcium Receptor (CaSR) Agonist**

By: Seshanand Chandrashekar

Chemistry

Faculty Shawn Hitchcock

Parathyroid Hyperplasia is the enlargement of all four parathyroid glands, and single adenomas are the enlargement of only one of the four parathyroid glands. Between the two pathologies of Parathyroid Hormone (PTH) secretion, the latter contributes to 90% of all reported cases of Primary hyperparathyroidism.<sup>5</sup> A direct consequence of elevated PTH secretion is an increase in kidney reabsorption of Ca<sup>2+</sup> and bone resorption of Ca<sup>2+</sup>. Bone release of Ca<sup>2+</sup> is the leading cause of Osteoporosis (brittle bones) and Osteopenia (breakage of bone). Minimally Invasive Radioguided Parathyroidectomy (MIRP) is a surgically invasive procedure and is currently, the only recourse available to sufferers of this disease<sup>6</sup>. The search for exogenous compounds that can regulate PTH and suppress excessive PTH serum levels then, is an area of research that has much medicinal value.

NPS-R-568 belongs to a class of compounds called Calcimimetics; by allosterically binding to the parathyroid gland cell surface Calcium Sensing Receptor (CaSR), it mimics elevated serum Ca<sup>2+</sup> and thus down-regulates PTH secretion<sup>7</sup>. With over 25% of commercial drugs sold today being either alkaloids or their structural modifications or analogues<sup>1</sup>, using alkaloids such as ephedrine towards the synthesis novel precursors and eventually viable drugs is an important field of Xenobiotics; and involve tapping the medicinal properties of these nitrogenous compounds. Enantiomerically enriched hydrazones were synthesized via reacting (1R,2S) ephedrine hydrazine with a variety of aromatic aldehydes, hydrazones were synthesized. To the imine bond of these hydrazones, 1, 2, - addition reactions added methyl and ethyl groups (Grignard additions). Preliminary results indicate the creation of single diastereomers as products of the Grignard additions. These 1,2-addition reactions created chiral centers that will subsequently be isolated by cleaving the hydrazine bond. It would follow that this stereoselectivity would yield enantiomerically pure amines, which are components of the medicinal agent such as, NPS-R-568.

### **Changes in Response Topography and Sensitivity to Reward during Exposure to Dopamine D1 and D2 Receptor Agonists**

By: Seshanand Chandrashekar

Psychology

Faculty Valeri Farmer-Dougan

The study supports that the Dopamine D1 and D2 receptor families may incite differential effects on reward behavior. DA D1 (including the D1 and D5 receptor subtypes) receptors may be part of a feedback loop about reward. In contrast, DA D2 receptors (including D2, D3, and D4 receptor subtypes) may regulate overall response rates, and not reward sensitivity. Changes in sensitivity to reward during DA D1 and D2 agonist exposure were correlated with changes in behavioral topography differentially produced by the two agonists. D1 agonist-induced changes in sniffing, grooming, or general search behaviors detracted from operant responding and reduced sensitivity to reward. In contrast, D2 agonist exposure had a lesser effect on sensitivity to reward, but resulted in an overall response reduction. Changes in response topography were examined during exposure to a DA D1 agonist (SKF 38393), a D2 agonist (quinpirole), a D3 agonist (PD128095), and an generalized DA receptor agonist, Apomorphine, across a series of concurrent VI VI schedules. Rates of individual behaviors during baseline, saline, and each drug dose were obtained. The drugs elicited topographically different response repertoires correlating with differences in sensitivity to reward. These data further establish how specific DA receptor activity modulates choice behavior.

### **Identifying the Students with Parents Who Can't, Don't or Won't**

By: Lynn Childs

Educational Administration and  
Foundations

Faculty Zeng Lin, Amee Adkins

Research shows that parents play an important role in the educational success of their children. (Epstein, 2001, 2002. Kunjufu, 2001. Payne, 2001. Comer, 1997.) The No Child Left Behind legislation of January 8, 2002, mentions parent(s) 974 times and mentions family an additional 182 times. However, parental responsibility and support can not be legislated. There are many students whose parents can't, won't or don't get involved. This study use quantitative methods to identify the population of students who are in homes with parents who can't, won't or don't provide support for the educational program of their children. Research demonstrates that these students are typically the very same students who fail to meet the state and district standards. If the educational system is going to ensure that these children meet the state and district standards, then we must learn more about the needs of these students to provide programs that will help them learn to their fullest potential. It is only as we define and provide this group of students with a voice in the development of support initiatives will we be able to address their needs as they strive to learn without the support from their parents or/and extended family.

### **Material Culture and Expressions of Identity in the North American Whaling Industry: 1600-1900**

By: Lisa Collins

History

Faculty Lee Beier

Archaeologists have argued that material culture studies can provide insights into the formation of identity in pluralistic social settings. Unlike many other industries of this era, the whaling industry was comprised of a multi-ethnic labor force. Crews were comprised of Europeans, Pacific Islanders, Africans and Native Americans among others. This paper investigates the role of material culture in the formation of identity on board North American whaling vessels during the period between 1600 and 1900. Specifically, the author examines artifact assemblages recovered in archaeological expeditions to delineate the expression of class and ethnic identity through material culture.

### **Burnout in Public Agency Child Welfare Workers**

By: Cara Comerford

Social Work

Faculty Kathy Wehrmann

In public service agencies worldwide, large populations of social workers experience burnout, resulting in negative outcomes for not only themselves, but also the clients with which they work. Empirical research supports the hypothesis that children and families experience far better outcomes when served by social workers employed in positive working environments.

The Illinois Department of Children and Family Services (IDCFS) is an agency designated to provide for the protection and well being of children and families in our communities. As can be imagined, this is a considerable task, requiring much dedication and hard work from specially trained social workers. Sometimes, this task can become so demanding that it begins to take its toll on even the most committed worker. Over time, the chronic stress of working in child welfare can result in professional burnout.

Burnout can have a deleterious impact on the functioning of child welfare agencies. Child welfare workers experiencing burnout are more likely to disregard significant aspects of their jobs and/or make poor decisions in their cases. Agencies with high rates of employee burnout run the risk of compromising the safety and well being of the families with which they work – this is often in direct contrast to an agency's identified priority goals. If agencies are not aware of the affects of burnout and do not engage in the creation and implementation of prevention plans, the services they provide to families will be inadequate at best.

A descriptive, cross sectional survey design will be used in this study, with a non-probability convenience sampling design.

Casework and investigative staff members from six IDCFS offices will be surveyed using the Maslach Burnout Inventory (MBI), as well as an accompanying demographic sheet.

World renown for its versatility, the MBI is the standard research tool used in measuring burnout It is divided into 3 sub-scales, measuring levels of emotional exhaustion, depersonalization, and personal achievement.

This study's dependant variables include scores on each of the MBI sub-scales. Independent variables encompass all of the items on the demographic sheet. All variables will be compared and analyzed to determine if any or all of the independent variables affect levels of burnout and if casework and investigative staff exhibit different types of burnout. Once surveys are collected and aggregated, the resulting data will be analyzed by using the statistical software program, SPSS.

### **An Abnormal Pathway for Heme Biosynthesis Using the Enzyme Coproporphyrinogen Oxidase**

By: Christopher Cooper

Chemistry

Faculty Marjorie Jones, Timothy Lash

In the disease porphyria cutanea tarda (often found in people with liver damage and results in skin photosensitivity), an abnormal series of isocoporphyrins are commonly excreted. These porphyrins appear to arise from the premature metabolism of the natural pentacarboxylate intermediate (5dab) by coproporphyrinogen oxidase (copro'gen oxidase). This observation implies that an alternative pathway for heme biosynthesis may operate under abnormal conditions. In normal metabolism, coproporphyrinogen-III (C-III) is converted to protoporphyrinogen-IX (P-IX) by the enzyme copro'gen oxidase. However, a substrate binding model for the enzyme predicts that 5dab should also be a good substrate for this enzyme. In order to confirm this prediction, purified, cloned human copro'gen oxidase was incubated with C-III or the four pentacarboxylate isomers (abc, bcd, cda, and dab) at 37°C with various substrate concentrations under initial velocity conditions. Only 5dab was a good substrate for copro'gen oxidase leading exclusively to production of monovinyl product (didehydroisocoporphyrin confirmed by <sup>1</sup>H NMR and mass spectrometry). The  $K_m$  (an indication of molecular recognition),  $K_{cat}$  (turnover number), and  $K_{cat}/K_m$  (catalytic competency) values were determined. The  $K_m$  value for C-III was about the same as the  $K_m$  for total product formation with 5dab. These data support that an alternate route is possible for heme biosynthesis.

### **A Critical Analysis of Charles Frazier's Cold Mountain: Fact or Fiction?**

By: Susan Crowe

History

Faculty Lee Beier

For my research presentation, I plan on discussing my analysis of the highly-acclaimed Cold Mountain, and why Charles Frazier's combination of historical facts and fictional assumptions can be problematic for the field of history. While Cold Mountain examines several fascinating aspects of the American Civil War, its fictional elements prove to be troublesome in presenting the public with an accurate account of the Civil War.

### **The Employment of an L-phenylalanine Derived Oxadiazinone in the Asymmetric Aldol Reaction: Efforts Towards the Synthesis of Hapalosin**

By: Ryan Davis

Chemistry

Faculty Shawn Hitchcock

Chirality is an important characteristic of all living things, without chirality the world would be different. Chirality is also very important in the pharmaceutical realm. Functionality of chiral drugs are due to their specific chiral shape. Sometimes the racemic mixture offers a less effective treatment and sometimes the other enantiomer causes harm. For these reasons enantioselective synthesis of drugs are very important in the pharmaceutical industry. The research done employs a chiral template known as an oxadiazinone to transfer chirality to a prochiral substrate. Through several asymmetric aldol reactions three key fragments of Hapalosin will be produced and then coupled together to form the enantiomerically riched hapalosin. Hapalosin is a biologically important molecule that is capable of blocking over expression of the MDR1 gene, which is responsible for the construction of a 170 kDa p-protein. This p-protein acts as a drug efflux pump in cells. Hapalosin is used to treat cancer patients who develop drug resistance to cytotoxic drugs by eliminating drug resistance in the cancer cells, allowing the cytotoxic drugs to function in killing the cancer.

### **Attitudes Toward Women**

By: Emily Dettro, Alaina Filkin, Chris Donahoe, Luke O'Brien

Management and Quantitative

Faculty Masoud Hemmasi

The proposed research study will look at the gender stereotypes that women face in the workplace, focusing mainly on those in managerial positions. Additionally, the study will focus on the challenges that women face as a result of the gender stereotypes. Approximately 200 MBA students from Illinois State University will be surveyed using a variety of single-item and multiple-item measures. These measures include: indicating individual demographic characteristics, measurement of masculine and feminine characteristics (as they relate to managers), and the Attitudes Toward Women Scale, Women as Managers Scale, and Fourteen Categories of Leadership Behavior. Hypotheses include: Male managers are perceived as being more competent in their positions than female managers. Women will view female managers as more competent in their positions. Men will view male managers as more competent in their positions. Masculine traits, as compared with feminine traits, will be perceived as more like those of effective managers. Men, as compared with women, will be perceived as having more desirable leadership behaviors. Results are pending completion of the research.

### **Anti-German Sentiment in Bloomington, Illinois during World War I**

By: Jason Eilers

History

Faculty Lee Beier

The paper will focus on anti-German sentiment in Illinois during World War I with emphasis on the year and a half that the US was at war with Germany. In particular, the story of Bloomington, Illinois and the German-language newspaper Bloomington Journal will be used as examples of how a very large, successful, and highly integrated ethnic group came to be seen by many Americans as potential or actual traitors, spies, and saboteurs. It is unique in America's history that a Caucasian racial group could, after initial integration, suddenly be deemed as subaltern by a large part of the rest of the population and then, after the conflict, be seemingly reaccepted almost as quickly as they were rejected. The government and private citizens alike made concerted efforts to silence those who tried to keep their German culture alive. The paper will attempt to tie together questions of demographics, attitudes of and towards the German-language press, actions of the local Councils of Defense that were set up during World War I, and the local conditions in Bloomington, Illinois.

### **Symbolic Learning and Consequential Functions**

By: Trisha Erbstoesser

Psychology

Faculty Tom Critchfield

We report the beginning steps of an analysis to determine how multiple consequential functions of stimuli transfer within stimulus equivalence classes. Stimulus equivalence occurs when an individual relates two stimuli that have never been directly paired but have both been paired with a mutual stimulus. A simple example of this phenomena is that humans can derive a relation between A and C if they are told the following information:  $A=B$  and  $B=C$ . Research has demonstrated the transfer of a single consequence function within an equivalence class (Hayes, Kohlenberg, and Hayes, 1991). Outside the laboratory, however, equivalence classes may encompass multiple functions among stimuli, including opposing functions. The present analysis begins to examine how the functions of stimuli transfer when a single equivalence class is trained that contains stimuli with opposing functions. Participants were trained to make simple discriminations that ultimately paired the gain of points (+30 or +10) and loss of points (-10 or -30) with abstract stimuli (B1 and C1). After demonstrating that the abstract stimuli could serve as consequences for responding in the absence of point feedback, the abstract stimuli were trained into the same 3-member equivalence class (A1-B1-C1). Afterwards, discriminations were conducted where the A1 and A2 stimuli served as consequences for responses. Results indicate that the A1 stimulus took on the function of the relatively larger consequence.

### **3,4,5,6-Tetrahydro-2H-1,3,4-oxadiazin-2-ones as Chiral Auxiliaries: Efforts Toward the Synthesis of a Key Intermediate of Bouvardin**

By: Jennifer Finefield

Chemistry

Faculty Shawn Hitchcock

Using (1R,2S) norephedrine, 3,4,5,6-tetrahydro-2H-1,3,4-oxadiazin-2-one was derived for use in the asymmetric aldol addition reaction. The use of norephedrine served as an excellent template for creating new oxadiazinones due to the absence of substitution on the nitrogen. To the N4-position of the heterocycle, an isopropyl group was added. After the synthesis of the N4-isopropyl substituted oxadiazinone, we added a bromoacetyl bromide to the N3-position and applied this heterocycle in various asymmetric aldol applications. In a parallel reaction, (1R,2S) ephedrine was used to synthesize a similar oxadiazinone with a methyl group at the N4-position, as opposed to the isopropyl group found on the norephedrine-based heterocycle [1]. The ephedrine-based oxadiazinone [2] was also acylated at the N3-position with bromoacetyl bromide and was applied in the same aldol addition applications as [1]. The next step was to cleave the aldol adduct from the heterocycle auxiliary in a hydrolysis reaction. Using various molarities of acid and base, it was found that [1] often resulted in either no cleavage of the adduct from the auxiliary, or a small yield of adduct along with a completely destroyed auxiliary. Fortunately, [2] has shown to be very promising in the hydrolysis reaction resulting in the adduct cleaving from the auxiliary with no damage to the heterocycle. Ultimately, we plan to employ this chiral auxiliary in the synthesis of a key intermediate of Bouvardin.

### **Customer Opinions of John Deere AutoTrac Self-Steering Systems**

By: Kim Fletcher

Agriculture

Faculty Douglas Kingman, Aslihan Spaulding, Patrick O'Rourke

John Deere, like any other business, is susceptible to and dependent on customers' opinions and perceptions of their products. When a new product is introduced, such as AutoTrac, John Deere Company is very interested in knowing what the customers think about it and how well it is working in the field. AutoTrac is John Deere's self-steering guidance system. An operator has the ability to do field operation without having to steer the machine, except for maneuvering around objects and turning at the end of the field. This is made possible through the use of Global Positioning System (GPS). This system can be used in all aspects of farming: planting, spraying, tillage, harvesting, and documentation of data. This research will evaluate current and potential customers' perceptions of AutoTrac which include, but are not limited to costs, increased income, indirect benefits, ease of use, and resistance to purchase. Furthermore, this project focuses on compiling a profile of those who are current users of AutoTrac in order to have a better understanding of the targeted market.

The method used to gather opinions is by the use of surveys mailed to various John Deere customers/farmers. Surveys are being distributed throughout the state of Illinois. Two hundred and fifty surveys were mailed in packages of ten to twenty-five John Deere dealerships. Management at these dealerships were asked to address the surveys to their AutoTrac customers and those who do not have AutoTrac but could be potential customers of it in the future. Customers and farmers are then asked to fill out the survey and return them back to Illinois State University in the preaddressed, stamped envelope provided. To compensate recipients for their time, improved product education and/or improved products are listed as benefits.

The survey includes three sections. The first section is aimed to collect demographics data on the farming operation, like age, size of the farm, equipment used, and implemented farming practices. The second section is aimed to gather information from AutoTrac users. Customers are asked to identify what machines they are using this technology on, how well they feel it is working, and what changes they would make if they could. The third section is aimed to gather information from non-AutoTrac users. They are asked to explain their reasoning for their resistance to purchase AutoTrac. The surveys are currently being conducted. Some data will be available by

### **Secret and Conflicting Policies: The Reagan Administration's Military Ties to Iran and Israel from 1980 to 1986**

By: Daniel Foley

History

Faculty Lee Beier

During the 1980s, there were two cases in which US officials were involved in hostage negotiations with Iranian officials. The first of these crises involved several Americans who were taken hostage at the US embassy in Tehran. It has been alleged that members of Ronald Reagan's presidential campaign were involved in illegal negotiations with Iranian officials in which the US, if Reagan was elected president, would supply Iran with arms in exchange for hostages. On January 21, 1981, the day of Reagan's presidential inauguration, the hostages were released. Later in 1985, in an attempt to free the American hostages who had been captured by the Shi's paramilitary group Hezbollah in Lebanon, the Reagan administration had allegedly used arms sales to Iran in order to fund the Contras, who were seeking to oust the Sandinista regime in Nicaragua. Although the hostage crises in 1980 and 1985 are commonly viewed as separate incidents, there were many important figures who were allegedly involved in illegal activities in both of these cases. These figures include former CIA director and Vice-President George Bush, CIA director William Casay, Iranian arms dealer Manucher Ghorbanifar, and members of the Israeli government who had sought to help arm Iran as a means of altering the balance of power in the Middle East. In this paper, I am seeking to show the relatedness of these two hostage crises as part of a consistent policy of the Reagan administration.

### **Children's Use of Object Cues to Remember Where Things Go**

By: Emily Foster, Sarah Brown

Psychology

Faculty Alycia Hund

Remembering the locations of objects is essential to daily life. For example, getting dressed in the morning requires the use of memory to select multiple items to complete an outfit. Previous research has focused on the geometric properties of memory, such as the ability to remember object locations based on their location in a room. However, properties of the objects may also aid in memory. For example, just knowing that your clothes are in your closet does not help in being able to locate the specific shirt you want to wear. Instead, locating the shirt depends on the organization of the closet, which for most people is based on object properties. The goal of the present study was to investigate how people use object cues to remember the locations of objects. Seven-, 9-, and 11-year-old children and adults learned the locations of 20 miniature objects in an open square box. The objects belonged to four categories: animals, vehicles, food, and clothes. In one condition, the objects belonging to each category were along the sides of the box. In the other condition, the objects belonging to each category were in the quadrants of the box. Participants first watched the researcher place the objects in marked locations. Then, participants were given each object and were asked to place it in the correct location. Once the participants correctly replaced all 20 objects, they were asked to replace the objects without the aid of the dots that had marked their locations. The order of placement and the coordinates of the objects were recorded. As predicted, participants used the object cues to aid their memory of the locations. That is, participants tended to replace all of the objects belonging to one category before replacing those belonging to another category. Moreover, participants placed the objects belonging to the same category closer together than they really were. In general, organization based on object cues increased with age. These findings specify how children and adults make sense of the complex interactions between object and location information.

### **Resistance Is Not Futile: Maori Settlement Adaptation as Resistance to Colonization, 1642-1870s**

By: Adam Fracchia

History

Faculty Lee Beier

Before European contact in 1642, the Maori of New Zealand utilized two different forms of settlements, the fortified pa and the unfortified kainga. The pa was used to resist attacks from other Maori peoples during periods of aggression. After involvement with the Europeans, several aspects of Maori life changed. This change is seen in the material culture and settlement patterns of the Maori. As conflicts between the Maori and the British erupted into war, the Maori were able to adapt the pa into an effective form of resistance to the British and colonial forces and a new type of warfare. Archaeological remains and historical accounts give evidence of this evolution and use of the pa over time.

### **P.E.O.P.L.E Program**

By: Tracy Gallovitch

Kinesiology and Recreation

Faculty David Thomas

Currently, the United States is in the midst of an obesity epidemic. Sixty percent of all U.S. adults are overweight and 33% are obese. This epidemic is affecting people of all groups, including children. Approximately, 15% and 25% of children and adolescents are overweight or obese, respectively. **PURPOSE:** The Physical Education Obesity Prevention and Lifestyle Enhancement (PEOPLE) Program has been developed to counter the growing number of young children in the United States that are overweight or obese. **METHODS:** Illinois State University is working with Illinois public school districts and communities to develop comprehensive strategies to counter the rising epidemic of obese and overweight children in the United States. In 2004, ten school districts in Illinois were selected to participate in the PEOPLE Program. The school districts were required to prepare vision and mission statements, needs assessments, objectives, action plans, evaluation plans, and a budget to develop a collaborative program aimed at promoting physical activity and healthy nutrition. The PEOPLE Program encourages activities that are school, family, and community based that promote physical activity and healthy nutrition. The schools/communities were given the opportunity to develop innovative programs designed to achieve these goals. Representative Tim Johnson (115th Congressional District) set aside \$165,000 in 2004 and \$125,000 in 2005 from the federal budget for implementation of the PEOPLE Program. **RESULTS:** The emphasis of the PEOPLE Program's work to date has been on helping schools conduct needs assessments; plan, implement, and evaluate activities and strategies that promote physical activity and healthy nutrition. Additionally the PEOPLE Program helps to coordinate school, family, and community efforts and resources. Activities the schools have been involved in include: hosting wellness, health, and fitness fairs; purchasing equipment such as heart rate monitors, pedometers, and peaceful playgrounds; building outdoor tracks, promoting healthy vending machines, healthy birthday snacks, and healthy lunch choices; circulating newsletters with fitness and nutrition information, and assigning homework assignments related to fitness and nutrition. **CONCLUSIONS:** Since this is still a work in progress, final conclusions are not possible at this time. However, early feedback indicates that successful implementation of programs promoting healthy nutrition and physical activity are underway.

### **Synthesis and Characterization of Half-Sandwich Ruthenium(II) Complexes With Chelating N-S Ligands**

By: Dominic Halbach

Chemistry

Faculty Christopher Hamaker

Half-Sandwich Ru(II) complexes containing N-N' bidentate Schiff-base ligands have been well characterized and studied due to their interesting photochemical properties. A new series of half-sandwich Ru(II) compounds containing N-S Schiff-bases derived from the condensation of various anilines and aromatic aldehydes have been synthesized. Their structure, spectroscopic properties, and reactivity will be presented.

### **Factors Related to Successful Completion of Substance Abuse Treatment Among Women in Project SAFE**

By: Genesis Hall

Social Work

Faculty Kathy Wehrmann

According to literature review, there has been a change in substance abuse treatment for women where programs are developed to address specific needs of their female clients, but the women still face barriers to entering and completing treatment. Project SAFE is a program of Chestnut Health Systems developed to help identify specific needs and eliminate barriers to substance abuse treatment for women involved in the child welfare system. The purpose of this research is to explore several factors that lead to successful and unsuccessful completion of substance abuse treatment for women involved in Project SAFE. This study will examine the impact of the client's history of violence, substance use, the placement of their children during treatment, and dual diagnosis (i.e. substance abuse in addition to another psychiatric disorder as diagnosed with the DSM-IV) on completion and non-completion of the Project SAFE Program at Chestnut Health Systems. Specific research questions that are addressed in this study are: (1) What factors influence successful completion of the Project SAFE substance abuse treatment program?; (2) What impact does violence play on the completion of substance abuse treatment?; (3) What influence does child placement have on the completion of substance abuse treatment?; and (4) What influence does substance use have on the completion of substance abuse treatment?

Data is being collected from clinical treatment records available on past Project SAFE clients who participated in the program during fiscal year 2003 to 2004 who were identified as unsuccessfully completing the program (N=31) and as successfully completing the program (N=19). A total of 31 clinical files will be randomly selected from the total population of unsuccessful graduates of Project SAFE clients. Also, all clinical files of successful graduates of the Project SAFE program (N=19) will be used for this study. Univariate descriptive level statistics will be conducted on all categorical level variables. Descriptive level statistics will be performed to determine mean and standard deviation on continuous level variables. Also, bivariate analysis will be conducted on the three main independent variables and the dependent variable, using contingency tables and chi square. Depending on the results of this study, this research could provide information to Chestnut Health System on the characteristics of women with substance abuse problems who are involved in the child welfare system that can be used to develop or improve programs and services as well as to promote successful completion of treatment.

### **Investigating the Reliability and Validity of the Attitudes of Interpersonal Violence Scale**

By: Jennifer Hammond, Jonathan Stagg

Psychology

Faculty Marla Reese-Weber

The purpose of the current study was to establish the reliability and validity of a new measure of adolescents' definitions, acceptance, and tolerance of dating violence (Attitudes of Interpersonal Violence Scale). Participants included 75 female and 46 male high school students (mean age 15.8 years) from a Midwestern high school. The ethnic composition of the sample was approximately equal to the ethnic composition of the community. Students were asked to complete paper and pencil questionnaires and to respond to a video vignette of a violent encounter in order to assess their attitudes, beliefs, and experiences related to dating violence (e.g., when violence is justified, how often they had been victims or perpetrators of violence). The self-report measures were administered during two phases approximately two weeks apart in order to measure how responses in phase one would predict self-reported behaviors at phase two. It was expected that the Attitudes of Interpersonal Violence Scale would correlate with previously validated measures of attitudes about dating violence (e.g., the Acceptability of Violence scale, the Social Norms of Dating Violence scale). In addition, it was expected that the new measure would predict dating violence behaviors as measured by the Conflict Tactics Scale.

### **A Comparison of the Lower Extremity Kinematics Between One- and Two-Leg Landings**

By: Saori Hanaki

Kinesiology and Recreation

Faculty Steven McCaw, Dale Brown, Todd McLoda

When landing, eccentrically controlled hip flexion, knee flexion and ankle dorsiflexion contribute to energy absorption. A recent comparison (1) of ground reaction forces between landings onto one and two-legs suggest a lander alters technique to reduce the magnitude of forces imposed in different landing situations. Comparing the kinematics at the ankle, knee and hip joints is a preliminary step in understanding technique alterations utilized for different landing situations. PURPOSE: To compare lower extremity joint kinematics between drop landings onto one and two-legs. METHODS: Eighteen college age females, free of lower extremity trauma, volunteered as participants. In one session, ten successful trials of one- and two-leg landings from a 38 cm stool were performed in random order by each participant; instructions were to "land comfortably". Position of the right hip, knee and ankle joints was calculated from a sagittal plane video recording (120 Hz) beginning before contact through to maximum joint position. Five kinematic variables (touch down angle, maximum angle, range of motion, peak angular velocity, and time to peak angular velocity) were calculated for each joint for each trials. The subjects' 10-trial mean values for each kinematic variable was entered into a paired t-test (&#945;=.05) to identify statistical differences. RESULTS: At contact, participants exhibited a significantly more extended position at the knee and ankle joints during one-leg landings, but not at the hip joint. During a one-leg landing, significantly less range of motion (ROM) was utilized at the hip and knee joints but significantly greater ROM was utilized at the ankle joint; thus, a more extended position was present at the hip and knee at maximum joint flexion in a one-leg landing. Between contact and maximum joint flexion, significantly lower peak angular velocities were measured at all three lower extremity joints. There were no significant differences in times to minimal joint angle or time to peak joint angular velocity. The more extended positions measured during a one-leg landing may reflect balance considerations, while the lower angular velocity values suggest reduced energy absorption. CONCLUSION: One leg Landings are characterized by more extended joint positions and lower joint angular velocities.

### **Effects of a Task Failure Exercise on the Peroneus Longus and Brevis during Perturbed Gait.**

By: A. J. Hansen

Kinesiology and Recreation

Faculty Todd McLoda

Objective: Ankle inversion injuries represent the most common trauma sustained by athletes. Muscle fatigue from activity may contribute to a delay in the response of the ankle proprioceptors and dynamic restraints during unexpected inversion. The purpose of this investigation was to determine changes in peroneal average EMB, peak EMG, and time to peak EMG following a task failure exercise. Design and Settings: Single factor repeated measures design in a university laboratory. Subjects: Thirty-two subjects (age  $20 \pm 1.43$  years; 21 male, 11 female) with no lower extremity injuries reported for data collection. Measurements: Data were collected from each subject's dominant leg using surface electromyography (EMG). EMG electrodes were applied over the peroneus longus (PL) and brevis (PB) using a standard protocol. Subjects walked at a fixed pace on a 6.1m runway with one section that could be unexpectedly dropped into  $30^\circ$  of inversion upon foot contact. Trials with perturbed an unperturbed gait were randomized to reduce prediction of the unexpected inversion. Once 3 trials of perturbed gait were recorded, subjects completed an isotonic activity that isolated the peroneals. The task was completed to failure. Immediately following the task failure exercise, subjects walked on the perturbation runway once again until 3 trials of perturbed gait were recorded. Results: Analysis revealed no significant differences with regard to average muscle activity between pre- and post-task failure exercise for the PL ( $F_{1,31}=0.133$ ,  $p=0.718$ ) or for the PB ( $F_{1,31}=0.795$ ,  $p=0.380$ ). There was also no significant difference in peak muscle activity pre- to post task failure for the PL ( $F_{1,31}=0.032$ ,  $p=0.859$ ) or for the PB ( $F_{1,31}=0.156$ ,  $p=0.695$ ). Finally, there was no significant differences in time-to-peak muscle activity pre- to post-task failure for the PL ( $F_{1,31}=0.830$ ,  $p=0.369$ ) or for the PB ( $F_{1,31}=1.037$ ,  $p=0.316$ ). Conclusions: We concluded that the task failure exercise did not contribute to changes in peroneal activity during perturbed gait. These results indicate that peroneal fatigue does not play a significant role in the incidence of inversion ankle sprains.

### **The European Union and Frances's Role in its Evolution**

By: Pegah Hemmasi

Management and Quantitative

Faculty Iris Varner

Being the birthplace of the idea of a united Europe, the French legacy in the establishment and development of the European Union (EU) is deserving of special attention. This is especially the case since France's original role in the formation of the EU versus its current position vis-à-vis EU mandates can be characterized as somewhat paradoxical. Originally, the idea of a united Europe was mainly created and presented by Frenchmen. Over the years, what we now know as the EU has slowly been evolving from the relatively simple European Coal and Steel Community toward a fully integrated Europe. And until recently, France has been a key player in this development process. However, in recent years, largely due to a few significant characteristics unique to France, she has been showing resistance to further development of the Union, choosing for herself when and how to co-operate. But there are reasons to be optimistic about the future of France and its stature in the EU. This is especially true now that some of the country's emerging demographic and social trends tend to support and facilitate the introduction of the traditionally unpopular, but long-overdue public policy reforms required for the nation to be able to become a more supportive team-player in the ever-evolving, ever-growing European Union. This paper takes a closer look at the legacy France has created with the inception of the EU, the contribution she has made to its development, the challenges she is recently facing in remaining an integral part of the Union, and the adaptations that she must make in order keep its stature in the EU.

## **Verbal Communication Patterns Used by Beginning Counselors: Is Their Communication Style More Presumptuous or Attentive?**

By: Kristine Henning

Psychology

Faculty Jeffrey Kahn

The purpose of this study was to examine the pattern of verbal response modes (VRM) used by beginning counselors within a single counseling session and across three consecutive sessions. Another goal was to provide a descriptive analysis of verbal communication and identify changes in counselor presumptuousness and attentiveness over time.

The verbal communication between two different client-counselor dyads was coded using Stiles' (1992) Verbal Response Mode taxonomy. Stiles' system contains eight exhaustive and mutually exclusive categories: advisement, acknowledgement, confirmation, reflection, questions, interpretation, disclosure, and edification. Each utterance (which may be a sentence or part of a sentence) is coded for grammatical form and for the intention of the utterance. This study focused on the intent of the counselor's utterances because intent reflects the goals of communication.

Furthermore, this study focused on the presumptuousness and attentiveness of the counselor. When a counselor is presumptuous, he/she is attempting to direct the client, whereas attentiveness is used to acknowledge the client's perspective (Stiles, 1992). I predicted that counselors' verbal style changes as a session progresses, particularly in the first session as the therapeutic relationship and working alliance develop (Cormier & Cormier, 1990). I predicted that VRMs will change as the counselor attempts to accomplish different goals within and between sessions. I also predicted that counselors will use more of an attentive than a presumptuous style because of the nature of the relationship and nondirective orientation of beginning counselors.

The first three sessions of counseling for two clients were analyzed. Counselors were first-year doctoral students in a counseling psychology program, and clients were first-year undergraduate students who participated in the experience for extra credit. Both dyads analyzed comprised a male counselor and a female client. One client was seeing a counselor to help balance school with her social life and to resolve conflicts with an ex-boyfriend. The other client was struggling with time management skills while balancing expectations placed on her by school, work, and her family. Sessions were videotaped, and the verbal content of the sessions was transcribed and coded using Stiles' (1992) VRM system. Each session was coded by one rater, and one session was coded by a second rater to establish reliability.

The findings from this study will help educators guide beginning counselors in their training of counseling skills. Future research might examine communication between actual clients and advanced counselors.

## **Leisure Boredom in Activities of College Students**

By: Benjamin Hickerson

Kinesiology and Recreation

Faculty Brent Beggs, Amy Hurd, Sandra Klitzing, Chad McEvoy

The years spent in a college environment are important to the development of leisure patterns, behaviors and skills. During this formative period many college students display positive leisure behaviors, however some may exhibit negativity or deviance in their leisure. These deviant behaviors can be caused by a lack of leisure skills and the presence leisure boredom. Gabriel (1988) noted that if there are problems with boredom in critical development periods of leisure behavior, individuals may seek relief from the unpleasantness of this repression by entertaining various methods of deviant or negative behavior. Iso-Ahola and Weissinger defined leisure boredom as the subjective perception that available leisure experiences are not sufficient to instrumentally satisfy needs for optimal arousal (Iso-Ahola & Weissinger, 1990, 4-5)." The purpose of this study was to examine leisure boredom in a university setting. More specifically, levels of leisure boredom were analyzed in four different categories of activity participation: active outdoor adventure activities, active competitive team sports, active individual sports and passive activities. Demographic information including age, gender, college experience, residency, and major was also analyzed to determine if these factors are related differences in levels of leisure boredom. The sample for this study consisted of 400 students enrolled in activity classes at Illinois State University. The instrument used in the survey included three sections. The Leisure Boredom Scale by Iso-Ahola and Weissinger was used to measure leisure boredom. In addition, a demographics section was included along with a modified version of the Leisure Activities Blank (LAB) by McKechnie (1975) to identify the type of activity that subjects participated in most frequently. The LAB was modified to consist of four categories: outdoor adventure activities, active competitive team sports, active individual sports, and passive activities. Analysis of Variance (ANOVA) and t-tests were conducted to examine differences in leisure boredom based on demographics and activity choice.

## **Can I Make Her Change Her Mind? Compliance Gaining in Unstable Leadership Classrooms**

By: Jamie Hines, Julie Semlak

Communication

Faculty Stephen Hunt

Although research focusing on influence in the classroom has provided insight into the ways in which teachers utilize influence in the classroom, little attention has been devoted to the role of student power in the classroom. As the literature addressing teacher influence in the classroom increases, one can find very little research on the reciprocal end of the influence, the student's perspective. Research to date has focused on the students' perceptions of teacher power, however Golish relates, "if compliance-gaining is truly a dynamic, relational process, then students must also be examined and viewed as sources or agents of persuasion" (Golish, 1999, p.13). As this concern mounts, this study aims to provide insight into the context of student influence in the classroom. In addition, the study aims to further explore how stable and unstable leadership can affect student use of behavior modification techniques. Through a unique classroom situation, the study manifested as a naturally occurring opportunity to examine student influence in classrooms with stable and unstable leadership.

### **American Reaction to Prostitution in the Progressive Era**

By: John Hink

History

Faculty Lee Beier

Prostitution has a long history in the United States. However, American society's view of prostitution has evolved over time. The Progressive Era marks one such shift in America's opinion of prostitution. This is evident by a great deal of legislation on the federal, state, and local level concerning prostitution, as well as by the writings of social reformers and activists. This paper examines Jane Addams' *A New Conscience for an Ancient Evil*, The Vice Commission's report on the city of Chicago, and the Mann Act of 1910 as it illustrates the changing perception of prostitution in the Progressive Era, as well as the new approaches instituted to eradicate it.

### **Chestnut Health Systems' Attitudes Toward Homosexuals**

By: Tiana Holder

Social Work

Faculty Kathy Wehrmann

According to the literature, adolescents typically begin to explore and have sexual attractions between the ages of 10 and 14 years of age. Homosexual adolescents that identify themselves as homosexual are more likely to be victimized, attempt suicide and abuse substances. The victimization, substance abuse, and suicidal ideations are greatly associated with problems that accompany gender nonconformity, stress and lack of support for the homosexual adolescent. Due to the nature and extent of problems that are common among homosexual and questioning adolescents, it is imperative that counselors/therapists are able to effectively work with this population.

This study seeks to examine the attitudes of Chestnut Health Systems' staff toward homosexuals. The participants in the study include staff members that work within the Youth Case Management, Early Intervention, Youth Outpatient, and Youth Residential programs at Chestnut Health Systems.

It is hypothesized that females are less homophobic than males; younger participants are less homophobic than older participants, and participants with college degrees are less homophobic than participants with high school diplomas/GED's. It is also hypothesized that participants are more accepting of working with female homosexuals than male homosexuals.

Data collection tools include The Index of Attitudes toward Homosexuals (IAH) scale and a demographic information form. The IAH scale is a twenty-five question Likert scale instrument and the demographic information form seeks to collect participants' age (in range), sex, highest level of education, area of study, and the amount of time they have been working in the field. Together these variables will be used to determine the accuracy of the hypotheses.

The research design is an exploratory, cross-sectional survey design. The project consists of a one-time survey and includes some univariate descriptive statistics and bivariate analysis using inferential statistics of chi-square, T-tests and one-way analysis of variance as appropriate to the variables level of measurement. Based upon the results of this research study, there may be a need to further educate and train staff members by providing them with the necessary information and skills to better serve homosexual

### **Vietnamese and Other Asian Women's Immigration, 1965-1995**

By: Mary Hollywood

History

Faculty Kyle Ciani, Lou Perez

Asian immigration to the United States began well before the United States entered into wars in Asia. However, the wars with Korea and Vietnam led not only to Asian refugees fleeing persecution, but also to Asian war brides. Those Asian immigrants that arrived before 1975 experienced greater culture shock than those that arrived after 1975. Through the examination of secondary and primary sources, I discovered that while the resettlement camps erected in anticipation of a large influx of Vietnamese immigrants proved ineffectual, they did afford the immigrants time to adjust and familiarize themselves with the available resources they needed to enter the United States. However, the war brides that immigrated before 1975, did not have this chance to acclimate before entering the dominant white society, but stepped into a world that, in most cases, did not accept them or their culture. Additionally, Asian war brides did not settle with and benefit from a large enclave of their countrymen. Rather they settled in the home state of their husbands.

In my research on Asian war brides I discovered that war brides from Japan, Korea, and Thailand, experienced similar assimilation difficulties. Therefore, based on this information, I argue that the Vietnamese women experienced the same kinds of situations during their immigration.

### **Induction Programs and Beginning Special Educators: The Relationship Between Needs and Practice**

By: Jennifer House

Special Education

Faculty: Maureen Angell, Jeffrey Bakken

The purpose of this study was to examine the relationship between the perceived needs of special educators as they enter the field and the support in place within school districts to meet those needs. A survey design was implemented with 2001-2004 graduates of Illinois State University's (ISU) Department of Special Education. Of the 220 participants, 64 (29.1%) graduated in 2001, 54 (24.5%) in 2002, 65 (29.5%) in 2003, and 37 (16.8%) in 2004.

Nearly three-fourths of the participants had been teaching 2 or more years when they completed the survey. A majority of the teachers taught in suburban districts (f=127, 60.8%), 42 (20.1%) taught in urban districts, 36 (17.2%) in rural districts, and 4 (1.9%) taught in multiple districts. More than one-half of the teachers taught at the secondary level, with 45 (22.3%) teaching Grades 6-8 and 61 (30.2%) teaching Grades 9-12.

The survey included questions about the needs the teachers had upon entering the field, their induction, mentoring, and training programs, and the effectiveness of those programs in meeting their needs. The data obtained were compared across types of school districts (urban, suburban, or rural) in order to determine if any significant differences existed in needs and/or experiences among these different groups.

The findings showed that the areas in which the beginning special educators perceived having the most need were: (a) "Teaching Reading," (b) "Completing Special Education Paperwork," (c) "Managing Student Behavior," and (d) "District Special Education Policies." The data also demonstrated that the school districts most adequately addressed: (a) "Understanding IEP Goals & Objectives," (b) "District Special Education Policies & Procedures," and (c) "Completing Special Education Paperwork," as perceived by the teachers themselves.

Although the teachers' responses demonstrate that those topics were addressed, a majority of them indicated that their induction programs did not cover topics related to special education. Since many of the teachers who participated in mentoring programs had special educators as mentors, it is possible that these topics were addressed through their mentors. In addition, approximately 40% of the teachers indicated that they received training on special education policies through workshops.

Implications for school districts include the need to ensure that beginning special educators are given the support they need to learn their districts' special education policies and procedures. This support can be given through including special education-related

### **Emotional Responses to Controllable and Uncontrollable Stigma**

By: Jamie Hughes, Eric Wesselmann

Psychology

Faculty: John Pryor, Maria del Prado Silvan Ferrero

The current research investigates emotional reactions to social stigma. Initial pilot testing allowed for classification of 15 different stigmatized conditions into three groups based on the perceived level of blame attributed to the person possessing the stigma. The dual process model of reactions to controllable, uncontrollable, and neutral stigma was tested through moment-by-moment approach-avoidance reactions to stigmatized individuals. Participants also reported their emotional reactions to individuals in the three stigmatized groups. Replicating earlier findings, participants displayed a temporal pattern of immediate emotional and behavioral reaction to the stigmatized and subsequent rule-based adjustment. Reported emotional responses to stigma revealed that participants experienced more positive emotions toward uncontrollable and neutral stigma categories than toward individuals in a controllable stigma category. Analysis of emotional reactions and stigma avoidance are explored using partial correlations. Significant findings are explored in detail. Implications and limitation of the current research are also discussed.

### **The Effect of Issue Involvement on Negative Motive Attribution**

By: Jamie Hughes, Joshua Wondra

Psychology

Faculty: Glenn Reeder

Cognitive dissonance, or one's motivation to maintain consistency among cognitions, is believed to contribute to biased social judgement. Specifically, individuals who are highly involved in an issue should have highly consistent and organized attitudes concerning the particular issue. When one is confronted with individuals whose opinions differ from their own, one is motivated to reduce the tension that inconsistent attitudes can arouse. One technique that may reduce the tension and allow for cognitive harmony is denigration of the motives of those whose opinions differ from our own. It is predicted that individuals will strive to reduce cognitive dissonance through biased attribution. Specifically, people who are highly involved in an issue should be more likely to attribute negative motives to those whose conception of reality is discrepant from their own. The present study extends prior research in two ways. First, participants' level of issue involvement will be manipulating. Also, the individual difference variable of Personal Need for Structure will be measured. The personal need for simple, cognitive structure is predicted to influence one's need to maintain cognitive consistency.

### **Assessing the Relationship Between Values, Work Attitudes, and Work Behavior**

By: Matthew Hunsinger

Psychology

Faculty John Pryor, J. Cooper Cutting

The present studies investigated the relationship between values, work attitudes, and work behavior by assessing the validity of a Work/Leisure Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998). Study 1 examined the relationship between implicit (i.e., unconscious) work attitudes, explicit (i.e., conscious) work attitudes, and values, finding preliminary evidence for a relationship between work values and implicit work attitudes. Automatic associations vis-à-vis work and leisure were correlated, in the expected direction, with the self-reported importance placed on being ambitious (i.e., participants with an automatic association between work and positive rated ambitiousness as more important). In addition, graduate students, compared to undergraduate students, exhibited stronger positive implicit and explicit attitudes toward work. Study 2 examined the ability of implicit work attitudes, explicit work attitudes, and values in predicting past versus planned work and leisure behavior. Research has found that implicit attitudes are better predictors, compared to explicit attitudes, of behaviors that have a large spontaneous component (Marsh, Johnson, & Scott-Sheldon, 2001). For Study 2, it was hypothesized that past work behavior during the course of a week has a large spontaneous component, whereas planned work behavior for the next week has no spontaneous component. Accordingly, it is predicted that implicit work attitudes will better predict past work and leisure behavior, whereas explicit work attitudes will better predict planned work and leisure behavior.

### **Learning and Spatial Displacement: Getting Ahead is Not an Error**

By: Matthew Hunsinger

Psychology

Faculty Scott Jordan

The perceived vanishing point of a moving stimulus is reliably displaced beyond the actual vanishing point. Such displacements are often modeled as error. This implies that more experience with the task should reduce the error. To test this, we asked one participant (the controller) to control a dot's movements across a computer screen while another participant (the observer), who could neither see nor hear the controller, watched the dot's movements on a separate monitor. When the dot unexpectedly vanished, the observer indicated the vanishing point. After 40 trials, participants switched roles. Both participants generated forward displacements, but the controllers' were larger. Subsequent experiments indicated the larger displacement was due to internal models the controllers developed while learning to control the dot. Since more experience led to larger displacement, the data challenge the error-account while simultaneously supporting an anticipation account. In short, spatial displacement is a measure of anticipation, not error.

### **Relationship Between Students' Involvement in Extracurricular Activities and Entrepreneurial Tendencies**

By: Adriana Hurtado, Veronique Jonassen, Franck Thomas

Management and Quantitative

Faculty Masoud Hemmasi

The purpose of this study is to examine the relationship between college students' extracurricular activities and entrepreneurial tendencies. An extensive body of literature and research exists on demographic characteristics and personality traits of entrepreneurs. We hypothesize that students with greater entrepreneurial aspiration and stronger entrepreneurial ambitions would exhibit greater involvement in extracurricular activities, including greater tendency to hold responsible positions in student organizations.

### **Counseling of Sexual Assault Survivors: Help or Hindrance?**

By: Debra Hyde

Social Work

Faculty Jim Raines

Sexual assault is a social problem with stigma attaches to its survivors. In part, stigma stems from the symptoms of Post Traumatic Stress Disorder (PTSD). Past research suggests that survivors of sexual assault commonly present PTSD symptoms, which include low self-esteem, self-blame, and depression. The instrument used in this study asked survivors to choose from a list of 18-PTSD symptoms and a symptom frequency scale of 0 to 4. The counselor obtained this information at the first session to assist the survivor in describing the trauma and at 3-months to measure the survivor's progress. The present study tested for relationships between the number of counseling sessions and the reduction of PTSD and frequency symptoms at the end of 3 months of therapy. A quantitative analysis of thirty archival records of sexual assault survivors will be completed by May 2005. Implications of findings for counseling practice and future research will also be discussed.

### **Counseling of Sexual Assault Survivors: Help or Hindrance?**

By: Debra Hyde

Social Work

Faculty Jim Raines

### **Hopeless Spinning**

By: Margaret Iha

Theatre

Faculty Leslie Orr

Hopeless Spinning is a ten minute play I wrote for Dr. Orr's playwriting class. Dr. Orr entered it into the Kennedy Center ACTF ten minute play contest, and it won second place in the region. The play focuses on the interactions between a Brazilian street boy in Rio de Janeiro and an American female journalist who is beginning to recognize the importance of activism. The title represents the hopelessness of homeless children when few are willing to create positive change for them.

### **Understanding Environmental Influences on Students' SMET Career Choices and Success Using NELS 88 Data**

By: Grace Johns

Educational Administration and Foundations

Faculty Zeng Lin, Maura Toro-Morn

Studies show that the under-representation of women and non-white males in science, math, engineering, and technology (SMET) careers is due more to college prep planning at the junior high and high school level--exposure to enrichment opportunities, SES factors, and numbers of units of math and science courses taken--than due to inherent biological factors such as race or gender (Muller, Kinzie, and Stage, 2001). So, it is important to understand the complex system of influence (parents, advisors, teachers, and peers) that impact college and career decisions if we are to improve the representation of women and non-white males in SMET college and career tracks. Therefore, this study will examine those influences exerted on students during their high school (college preparatory) years. The data to be used for this study was originally collected as part of the NELS-88 longitudinal study of American students from grades 8 to 12 and beyond. Of particular interest will be the career and college outcomes of students--and their satisfaction with those outcomes--compared to their college preparatory experiences and influences. These findings will be of particular interest to educators -- especially individuals who function in policy shaping capacities - because they will want to base their policy decisions on observable phenomena rather than uninformed assumptions.

### **Enhancing the Academy: An Ethnographic Case Study of Women and Men Undergraduate Science Majors**

By: Grace Johns

Sociology and Anthropology

Faculty Maura Toro-Morn

The purpose of this study was to enhance the academy by providing a better understanding of the factors and variables impacting the choice and continuance of science as a major by underrepresented groups (especially women). Over the last twenty years, a growing number of studies have documented the low participation of women and ethnic minorities in the sciences from a recruitment perspective. The "leaky pipeline" concept is used to characterize the retention problem that often results once these underrepresented groups begin their science studies. Several professional organizations, as well as groups such as AAUW, have documented this problem and proposed solutions that range from reforming pedagogy, to improving climate, to providing gender and culturally sensitive mentoring. This study examined what recruitment and retention issues face current women (compared to their male counterparts) as undergraduates in the sciences. Participants in the sample (8 women and 3 men) were both surveyed and interviewed. In general, females graded their experiences slightly lower for major department, general education, and faculty mentors than did their male counterparts. However, females graded their experiences slightly higher than males on staff mentor, peer interactions, and special educational opportunities. The most consensus among all of the respondents had to do with their dislike of the general education component of their degree programs. Female undergraduates mentioned that family, friends, and/or teachers played a great role in their decision to pursue and complete their undergraduate science degree. The current study's findings seem to indicate that retention efforts are on the right track for women-even if mentoring and retention policies have not become institutionalized. By educators understanding the needs of their potential and current students, it is hoped that improved mentoring and greater institutionalization of solutions can be implemented in order to further enhance the undergraduate science experience of underrepresented group students.

### **Predicting Romantic Relationship Status: The Role of Attachment Representations and Conflict Tactics**

By: Katie Johnson, Aimee Ladd, Melody Joy Dransfield

Psychology

Faculty Gary Creasy

Most studies indicate that adolescents with insecure attachment representations have difficulty resolving conflicts with their romantic partners, and risk is elevated when both partners have attachment difficulties. However, most studies include only a one-time measurement. In this study, we conducted a 3-year follow-up on couples that were originally assessed in college. We found that adolescents with insecure attachment representations displayed poor conflict management, and couples with two insecure partners exhibited the worst behavior. We predicted such couples would less likely remain in these relationships during young adulthood than their counterparts with secure attachment representations and better conflict abilities.

Our original sample included 130 late adolescent romantic couples. Each partner completed the Adult Attachment Interview and was later observed during a conflict resolution paradigm. Three years after the initial observation, we re-located one member of 76 couples for a phone interview. The individual was asked to evaluate the current status of this relationship and completed a relationship satisfaction measure (Schumm, 1986).

Engaged and married couples were combined to form a single group ( $n = 15$ ). Most couples were no longer dating ( $n = 43$ ), and 18 couples were still steadily dating, yet not engaged/married. Attachment classifications (secure vs. insecure), and conflict tactics did not forecast relationship stability (breakup vs. still involved). However, couples that had displayed low rates of negative conflict behavior and high rates of positive behavior were more likely engaged or married. Couples containing two secure partners were more likely engaged or married than couples that had broken up or were "still dating". Couples that were still dating displayed more negative conflict interactions and less attachment security than the couples that had broken up. However, these couples were not significantly different from the engaged/married couples regarding relationship satisfaction. One possible explanation for this finding is that the attachment status or conflict tactics of the "still-dating" couples may have changed for the better. Alternatively, a high percentage of the couples that broke up contained one partner with a secure attachment representation, and these individuals may have been more prone to end unsatisfactory relationships.

### **The Sociology and Politics of Fernando Henrique Cardoso**

By: Richard Kane

Sociology and Anthropology

Faculty Richard Stivers, Frank Beck, Robert Hunt

I analyzed the career of Fernando Henrique Cardoso, one of the most important Brazilian intellectuals of the 20th century and the first professional sociologist to become Head-of-State. Cardoso is the most renowned Marxist scholar to lead a nation since the death of V.I. Lenin. This study aims to discover if there is truth to the quote which secured President Cardoso's place in Brazilian political folklore, when he reportedly told a group of businessmen in São Paulo to "forget what I wrote" as a sociologist. In doing so I wish to determine if Cardoso gave way to political expediency in betrayal of his Marxist sociological orientation. With this objective, I develop a construction of Cardoso the sociologist based on his most important book, *Dependency and Development in Latin America* (1979). I analyze how his preceding works on slavery and industrial entrepreneurs in Brazil contributed to the development of his academic career and overall sociological orientation, which I discover to be as Weberian as it is Marxist. I also consider the political events that had an important impact on Cardoso's intellectual development, in particular the 1964 coup d'etat and the Paris student revolts of 1968. Cardoso's exile to Chile and subsequent forced retirement by the military dictatorship galvanized him to become a leader in Brazil's struggle for re-democratization and inspired his political career. Cardoso began to change his political stance from left to center after becoming senator from São Paulo in 1982. Cardoso was appointed foreign minister 10 years later and is credited with ending Brazilian hyperinflation in 1993 as finance minister. Based on this success and the widespread popularity he gained as a result, Cardoso easily won the subsequent presidential election in 1994 and embarked on an agenda geared toward social and economic development within the framework of reformist capitalism. I conclude that rather than having given way to political expediency, Cardoso's professional background as a Marxist sociologist enabled him to become an effective president for Brazil.

### **Issues in Ethnic Indian Food Markets in Central Illinois**

By: Krishnamohan Katnapally

Agriculture

Faculty Aslihan D. Spaulding

Growing Asian-Indian population in the United States, fueled by increasing immigration makes ethnic food one of the most important segments in the food manufacturing and retailing industry.

Asian Indian population in the Central Illinois region is growing and higher popularity of Indian food among local people is noticed by grocery chains in the area. In recent years, some of the grocery chains in Central Illinois region introduced Asian Indian food in their aisles to reap the benefits of serving the food needs of growing Asian Indian community. The depth of the selection offered by some stores is often believed to be depending on neighborhood demographics while some of the stores are including all ethnic food items in one aisle.

Indian food offerings by grocery chain stores may not be very attractive to ethnic food customers due to limited product variety, lack of understanding Asian Indian customers, ambiguity in identifying the target consumer for the Asian Indian food, and lack of information on types of foods that would attract the target customer.

This research will examine strengths and weaknesses of stores offering Asian Indian food. This project aims to define typical customer for Asian Indian foods in the central Illinois region, find out various attributes important to the Asian Indian customer in choosing a store to purchase Indian food, and define consumer perception of product variety and store characteristics.

The methodology of the research includes surveys with Indian food customers. Surveys are conducted in both Bloomington-Normal and Urbana-Champaign by placing them in three independently owned Indian grocery stores. Customers are asked to fill the surveys and return them back to the store. Free video rental is offered to participants to compensate them for their time.

The survey includes two sections. The first section concentrates collecting information on consumer demographics including age, gender, ethnicity, education, household income, and family household size. The second section of the survey focuses on ethnic food store attributes and consumer perception of product and store availability. Consumers are asked to rank attributes important to them in choosing a store to purchase Indian food. They are also asked to report frequency of shopping for regular grocery vs. shopping for Indian grocery, types of ethnic foods they purchase, and type of stores they choose to shop at.

The surveys are currently being conducted. Results will be available by April 1, 2005.

### **Anxiety in Music Therapy Practicum Experiences**

By: Taehyung Kim

Music

Faculty Marie DiGiammarino, Dongyun Kim, Cindy Ropp

This study focuses on anxiety related to music therapy pre-internship training called practicum which is designed to introduce and orient the students to a variety of client populations, institutional settings, treatment approaches and music therapy methods. The participants of this study will include approximately 30 undergraduate and graduate music therapy students currently taking music therapy practicum classes at Illinois State University. Subjects will be asked to complete the survey questionnaire which consists of the following categories: general information about subjects such as gender and ethnicity, the sources of anxiety related to musical competencies, session planning and implementation, supervision, clients and other concerns, and coping strategies to ease practicum anxiety. Means, standard deviations, and frequency distributions from each question and list will be calculated and analyzed. The purpose of this study is to investigate Illinois State University students' anxiety levels in music therapy practicum experiences and to examine how music therapy students deal with anxiety in the practicum training.

### **Perceived Motivational Climate and Self-Determined Motivation in Male and Female High School Athletes**

By: Lindsay Klinefelter, Sean Flesch

Kinesiology and Recreation

Faculty Anthony Amorose

Given that self-determination theory (SDT, Deci & Ryan, 1985) and supporting research indicate a number of positive outcomes associated with possessing a more self-determined motivational orientation (see Vallerand, 1997), identifying factors related to the facilitation of this type of motivational orientation is an important research goal. According to SDT, anything that impacts the fundamental needs for competence, autonomy, and relatedness can ultimately influence one's motivation. While various factors may affect these needs within sport, research based on achievement goal theory (AGT, Nicholls, 1989) has indicated that the motivational climate (i.e., the definition of success and failure emphasized in the environment) may be particularly relevant. The purpose of this study was to examine the relationship between dimensions of the perceived motivation climate and athletes' self-determined motivation. Consistent with SDT, the relationship between the motivation climate and the athletes' motivational orientation was predicted to be mediated by the needs of competence, autonomy, and relatedness. Based on AGT and previous research, more task-involved dimensions of the motivational climate (i.e., cooperative learning, important role, effort/improvement) as assessed by the PMCSQ-2 (Newton et al., 2000) were hypothesized to positively relate to the motivational variables, whereas the ego-involving dimensions (i.e., punishment for mistakes, unequal recognition, intra-team rivalry) were predicted to negatively relate. Male and female high school athletes (N = 306) completed valid and reliable questionnaires assessing the various constructs of interest. Structural equation modeling revealed partial support for the hypothesized pattern of relationships. Perceived competence and autonomy positively predicted a weighted index of self-determined motivation; however, relatedness was a non-significant predictor. Of the ego-involved dimensions of the motivational climate, only punishment for mistakes was significantly and negatively related to the motivation variables. All three of the task-involved dimensions, on the other hand, were positive predictors of at least one of the three fundamental needs. Modification indices suggested the dimensions of effort/improvement and important role also exerted direct effects on self-determined motivation. With the addition of these two direct paths, the final model was deemed an acceptable representation of the data ( $df = 4$ ,  $\chi^2 = 5.91$ ,  $p = .21$ ,  $RMSEA = .04$ ), explaining 49% of the variance in self-determined motivation. Overall, the results support both theory and previous research demonstrating the effect of the motivational climate on athletes' motivation. The findings, however, also extend the literature by illustrating that specific dimensions of the motivational climate have unique associations with elements of athletes' motivation.

### **Needs Assessment of Family Preservation Families**

By: Jacqueline Knight

Social Work

Faculty Kathy Wehrmann

Family preservation is a form of child welfare service that bolsters the family's internal and external resources to prevent further child maltreatment. Family preservation families are identified by the Illinois Department of Children and Family Service (IDCFS) who have been investigated for abuse or neglect of their children. The main goal of family preservation programs is to prevent the removal of child from their parent(s) and enhance and strengthen the family so that it can remain intact. When client needs are not met, families will not be able to reduce family problems. This research study is a needs assessment of family preservation families served by a child welfare agency. It is intended to reveal gaps in existing social services for family preservation clients.

This study focuses on presenting problems and situations of clients and will enable the social service agencies to identify the needs of the clients and then determine if the agency is meeting the needs of the clients. Nonprobability convenience sampling will be used to select family preservation clients. The sampling frame includes all family preservation cases served beginning in July of 2004 through January 2005 by a youth service agency. The sample consists of twenty family preservation clients (n=20). Presenting problems and situations of family preservation clients are the variables to be identified as well as their frequency. The frequency of these variables will help identify the needs of the clients.

This study will use secondary data collected about family presenting problems and situations already recorded on intake forms completed by workers and entered into the agency database system. An analysis of the data be computed using EXCEL. The analysis will show the frequency of presenting problems and situations. It is expected that the results of this study will assist child welfare service providers in identifying what services are lacking in the community and provide support for efforts to advocate for additional services needed to support families in becoming empowered.

### **Legal Framework of Non-Governmental Organizations in Post-Communist Romania**

By: Douglas Kotlarczyk

Politics and Government

Faculty Thomas Eimmermann

In the autumn of 1989, communist regimes across Eastern Europe collapsed like dominos as one government after another promised its people free elections. Nicolae Ceausescu, dictator of Romania, would make no such promises. In December of 1989, the shocked eyes of the world turned to that nation as the long-oppressed people of Romania rose up against the communists. Broadcast live around the globe, images of open fighting in the streets of Bucharest and mass demonstrations of citizens waving the Romanian flag with the communist sigil torn from the center provided one of the most dramatic images in the decline and collapse of the Soviet Empire.

Although of less geopolitical significance, the coming together of great masses of ordinary Romanians in December of 1989 united in a common cause perhaps holds more importance in the life of the average citizen than the execution of the dictator that Christmas Eve. After five decades of repression under monarchical, fascist, and communist dictatorships, the right of Romanians to free association exploded back into existence that December. From political parties to cultural groups to social service organizations, NGOs in Romania have sprung up as if by magic over the past fifteen years. The shadow of communism still lies upon the country, however. The Romanian politicians who have come to power—many of them “reformed” communists—were reluctant to relinquish the total authority held by their predecessors.

The present work is an examination of the legal framework for the creation and operation of non-governmental organizations in contemporary Romania. Although this framework has certainly advanced by leaps and bounds since the days of Ceausescu, it remains in many cases overly bureaucratic and overtly authoritarian—indeed, some measures from the communist period remain in effect. This work will analyze the current legislation regarding the incorporation, operation, governance, and taxation of the Romanian nonprofit sector. Further, it will examine the implementation of this legislation and how this affects the growth and development of Romania’s fledgling NGOs. Attention will also be paid to the historical, social, and cultural factors—the state of the economy, corruption, the remnants of communist mentality—that influence the effectiveness of this legislation. In conclusion, these myriad legislative, social, cultural, and historical factors will all be considered to create a legal framework more conducive to a better regulated and more development-friendly NGO sector in Romania.

### **The Effectiveness of Ecstasy Health Communication on College Students**

By: Jeffrey Kuznekoff

Communication

Faculty Steve Hunt, Lance Lippert, Angela Jerome

This study explores the effectiveness of Ecstasy health communication amongst college students. Ecstasy or 3,4-methylenedioxymethamphetamine (MDMA) has become a drug of particular concern in the last decade. In the United States alone, over 8 million people age 12 or over have used Ecstasy at least once in their life (National Household Survey on Drug Abuse, 2003 March 21). Law enforcement seizures of Ecstasy have reached into the millions of dollars. Short-term health-risks of the drug include rapid heartbeat, faintness, high blood pressure, panic attacks, muscle cramping, and loss of consciousness (Drug Enforcement Administration, 2001). Long-term effects of the drug, although still being studied, can include damage to nerve cells that produce the neurotransmitter serotonin (Boot, McGregor, & Hall, 2000) in addition to possible damage to the social life of users (Topp, Hando, Dillon, Roche, & Solowij, 1999). Given these potential dangers, the effectiveness of Ecstasy health communication campaigns is of great importance. Several organizations, such as the United States government, colleges and universities, and the Partnership for a Drug Free America (PDFA) have developed and implemented such campaigns. Although this is a noble effort, Ecstasy use is still on the rise in the United States. Based on this, this paper examines the effectiveness of Ecstasy health related messages through the theoretical frameworks of the Health Belief Model (Hochbaum, 1958) and the Extended Parallel Process Model (Witte, 1993, 1994).

### **Effect of Education on AIDS- Across Country Study**

By: Manisha Lakhanpal

Economics

Faculty Rati Ram

The number of people suffering from the most devastating epidemic humanity has ever known has touched approximately 36.1 million. To this another 5.3 million people are being added every year. The objective of this research is to study the effect of education on the prevalence of AIDS across countries. Since one of the important nonmarket effects of education is improvement of one’s own health and health of one’s children, it is likely to have an impact on the incidence of AIDS. The study analyzed the impact of mean years of education on the AIDS incidence. The other factors taken into consideration were GDP per capita, per capita expenditure on health and a “religion” variable. Data for these variables were collected for a large number of countries covering the period 1990- 2001. The approach was to consider AIDS as the dependent variable and to judge the effect of the various factors. The results of the study clearly show the significance of education in reducing the AIDS incidence.

### **The Relationship Between Adolescents' Television Viewing Behaviors and Their Dating Role Attitudes**

By: Melanie Lebo

Psychology

Faculty Rocio Rivadeneyra

Although previous findings indicate that frequent television viewing is associated with having traditional gender role attitudes (Rivadeneyra & Ward, in press), no studies have examined the connection with having traditional dating role attitudes. In the present study, dating attitudes referred to participants' beliefs in whether males, females, or a combination of both should perform certain behaviors prior to, during, or after a date (i.e., pay for the date). Dating warrants further attention because it is a common social process among adolescents and the relationships formed forecast important competencies (Shulman, Collins, & Knafo, 1997). The present study examined the relationship between adolescents' television viewing behaviors and their dating role attitudes. Connections between overall exposure to television, viewing specific genres of television programming, perceived reality of television portrayals, and traditional dating attitudes were examined. Surveying 215 ninth graders from three midwestern high schools, correlational analyses indicated that (1) watching more romantic reality television was associated with more traditional dating role attitudes, (2) watching more non-romantic dramas was associated with lower traditional dating role attitudes, and (3) perceiving television to be more realistic was associated with lower traditional dating role attitudes. Hierarchical linear regression analyses indicated that watching romantic reality television and non-romantic dramas, and perceiving television to be more realistic were significant predictors of traditional dating role attitudes. If television is indeed portraying dating along traditional gender role lines, adolescents may begin to model these dating behaviors. Adhering to these behaviors can limit males' and females' roles during the dating process, ultimately giving males the power in romantic relationships.

### **Evaluating the Impact of Demographic Characteristics on Clinical Stress Scores of Parents Accessing Crisis Nursery Services**

By: Alyson Ludek

Social Work

Faculty Kathy Wehrmann

Previous research in the arena of child abuse and neglect has generated many factors that are associated with the onset of maltreatment of a child. Some factors are child-specific, but many are linked to characteristics of the parent or caretaker. One characteristic that is prominent in the literature is that of parental stress: caretakers who abuse or neglect their children frequently report experiencing high levels of stress in their daily lives. Thus, it would logically follow that reduction of caretaker stress would be a plausible method of child abuse and neglect prevention. This is the aim of the Crisis Nursery, a program that provides short-term child care and referral services to parents who are experiencing stress or a crisis. The Crisis Nursery utilizes the Index of Clinical Stress as an assessment tool to gauge parents' stress level at admission and discharge. The Crisis Nursery hypothesizes that accessing crisis care services will reduce parental stress and therefore reduce risk of child maltreatment. The question this study seeks to answer is whether demographic characteristics of parents impact Index of Clinical Stress scores and to what degree. Based on the results of this study, abuse prevention services could be better tailored to fit clients who experience the most stress. Examining which client demographics are associated with the least and greatest decreases in clinical stress could also guide program changes and improvements so that clients of all demographics receive the greatest benefit possible from Crisis Nursery services. To achieve these results, this study utilizes a cross-sectional descriptive design examining complete files of parents who accessed Crisis Nursery services from June 2004 through November 2004. A data collection tool will be used to record Index of Clinical Stress pre- and post-test scores from each client file. The Index of Clinical Stress is twenty-five items designed to indicate affective states associated with the experience of stress. Clients respond using a Likert-like five-point scale indicating how frequently they experience different symptoms of stress, such as difficulty sleeping or feeling tense and jittery. Client demographic variables—such as age, marital status, and education level—will also be recorded on the data collection tool. This secondary data is currently being collected at the Crisis Nursery. Its analysis will not only provide a vivid illustration of Crisis Nursery clients, but may also have implications for child maltreatment prevention services of the future.

### **A Reciprocal Quinceañera: A Traditional Collective Experience**

By: Dave Marcial

History

Faculty Lee Beier

A quinceañera is an event that occurs in the Latin American culture. It is a milestone event in the life of a fifteen year old young lady. The term Quinceañera can be translated in English as a, "cotillion", "coming of age party", "rite of passage". All the terms are acceptable but the actual word Quinceañera has a special meaning to the families that have participated in the organization. The word has a positive connotation that many have a sense of pride. The term Quinceañera comes from the word quince that means "fifteen" and años that means "age".

### **Are Myths and Legends of Imagined Territories Essential to the Governance of Pro-Colonial India?**

By: Fatemeh Masjedi

History

Faculty Subho Basu

In this paper I would like to conceptualize the mapping identities through the landscape of pilgrimage, inspired by Hindu belief, in Ancient India. From this perspective I analyzed the significance and level of pilgrimage, the social affect of pilgrimage in creating community, multi-religious unity and networking related to economy in Hindu belief. I also compared the phenomena with the significance of pilgrimage in Muslim faith. Governing people through the myth of shrines in India and Iran inspired me study the phenomena in the context of history and examine the possible influences of the sacred places in modern time.

### **What Makes You Think I'm Lying?: The Effects of Relationship Type and Deception Consequence on Beliefs About Cues/Behaviors Associated with Deception**

By: Joseph Mazer, Kate Magsamen

Communication

Faculty Mark Comadena

Every day humans may encounter many situations involving deception with friends and/or significant others. From the inconsequential "white lie" or "fib" to hazardously blatant acts of deception in relationships, 91% of humans lie on a regular basis (Anderson, 1999). One would not dispute the fact that nonverbal behaviors accompany our verbal messages and these behaviors affect the way that message is interpreted. Often, one might illustrate different or contrary behaviors when one is engaging in a deception act. Additionally, the intensity of the lie (i.e., "white" lie or high consequence lie, such as a lie about a marital affair) is likely to affect the nonverbal cues associated with deception in the interpersonal interaction.

This pilot study explores stereotypical nonverbal behaviors associated with deception. Specifically, the study explores whether or not these stereotypes vary according to the consequences associated with a lie (i.e., low consequence lie or high consequence lie), and the nature of the relationship between the deceiver and the deceived (i.e. a casual other or an intimate relationship). Utilizing pen and paper surveys and online surveys, the researchers collected data from across the United States, including participants from Illinois, Florida, Maryland, Massachusetts, New York, Pennsylvania, and Texas.

Statistical analysis revealed significant support for three (i.e., head movement, speech rate, self-references) of the 19 nonverbal behaviors associated with deception. Specifically, a 2 x 2 analysis of variance revealed a significant interaction effect for head movements, and a significant main effect for each consequence (speech rate) and context (self references). Neither the context of the lie nor the consequence of deception variables either separate or combined had an effect on pupil dilation, gaze, blinking, smiling, gestures, self-touch, leg and foot movements, postural shifts, response latency, response length, speech errors, speech hesitation, pitch, negative statements, and irrelevant statements.

### **Internal vs. External: Dual Diagnoses and Treatment Outcomes of Youth Residential Dependency Programs**

By: Misty McMorris

Social Work

Faculty Kathy Wehrmann

Substance abuse/dependence among children and adolescents is a major problem in the United States. Research indicates that children are beginning to experiment with drugs/alcohol at increasingly earlier ages and that they tend to also be affected by co-occurring psychiatric disorders. Studies have determined that having a dual diagnosis may have an affect on successful participation of adolescents in substance abuse treatment. It has also been determined that the type of psychiatric diagnosis might have a direct effect on treatment success with unsuccessful treatment outcomes coinciding with disruptive behavior such as ODD (Oppositional Defiant Disorder), CD (Conduct Disorder), and ADHD (Attention Deficit Hyperactivity Disorder).

The purpose of this study is to see whether or not the type of dual diagnosis (internal vs. external vs. both internal and external) has an affect on treatment outcomes for the Youth Residential Dependency Program at Chestnut Health Systems. It's hypothesized that those clients with both internal and external dual diagnoses will have more unsuccessful treatment completions than those with just internal or external diagnoses. Dual diagnosis includes substance disorders along with another psychiatric disorder (such as ADHD, schizophrenia, mood disorders, etc.), as diagnosed with the DSM-IV. Dual Diagnoses will be separated by internal (such as depression, anxiety, etc.), external (such as ADHD, Conduct Disorder, etc.) and both internal and external. After categorizing the diagnoses, treatment outcomes will be compared by internal vs. external vs. both internal and external.

This study utilizes an exploratory cross-sectional design with a non-probability convenience/availability sampling method. The data collection is purely secondary in which all information is redacted from 90 hard copy and computer files (30 from each category) within the Youth Residential Dependency Program at Chestnut Health Systems from fiscal years 2003 and 2004 using a collection form developed for the study. The variables for the study include treatment completion outcomes (dependent variable), age, gender, ethnicity, drugs of choice, previous treatment, other psychiatric disorder(s), and when they were diagnosed (independent variables). Depending on the results of the study, program modifications may be made to better support successful participation of youth with dual diagnoses in treatment programs

### **The Relationship Between Work and Academic Performance**

By: Tom Menning, Imran Jalozi, Amanda Newell

Management and Quantitative

Faculty Masoud Hemmasi

In the past ten years the number of employed college students has risen significantly. Research findings on student employment's effect on academic performance have been inconsistent. The present study is an attempt to create more consistent findings by presenting and testing variables in order to find a correlation between student employment and academic performance. The study will assess: a) extent of employment of undergraduate college students at various levels (full-time, part-time, on-campus, off-campus, number of hours worked), b) the effect that this employment has on academic performance and overall learning at different grade levels. The above issues will be examined in relation to gender, race, age, major, social activities, family background, parental income, previous academic performance, and whether the student has a scholarship or loan.

### **Nitrogen Management Strategies for Corn**

By: Wade Meteer

Agriculture

Faculty Robert Rhykerd, Kenneth Smiciklas

Nitrogen is vital to high-yield production agriculture. Yet environmentally it is perhaps the most difficult nutrient to manage. Fall applied anhydrous ammonium fertilizer has been linked to increased concentrations of nitrates in surface and ground waters. The objectives of this study are to compare the corn yields and the economics of seven of the most popular nitrogen fertilizer programs in central Illinois as identified by a local fertilizer dealer. This study was conducted on a uniform Ipava Silt loam soil with uniform grade and drainage. The experimental design consisted of seven treatments replicated four times in a completely randomized block design. The treatments were; fall anhydrous ammonia without N-serve, fall anhydrous ammonia with N-serve, spring anhydrous ammonia without N-serve, spring anhydrous ammonia with N-serve, spring liquid nitrogen solution, spring liquid nitrogen solution with side-dress liquid nitrogen solution, and spring liquid nitrogen solution with Ammonium Thiosulfate. Nitrogen was applied at the rate of 225 units per acre for each treatment. The plots were harvested when the corn reached approximately 15% moisture. The yields were adjusted to 15% moisture and compared to determine differences between treatments.

The study found that the average yields decreased between year one and year two by approximately 11% from 13284 kg/ha to 11786 kg/ha. Spring applied liquid urea-ammonium nitrate solution (28% N) had significantly lower yields than all other treatments. The study also indicated that the treatments had no significant impact on the following physicochemical properties: phosphorus, potassium, soil pH, CEC, and organic matter. With the exception of spring 28% all other treatments are viable fertilizer options to fall applied anhydrous that will not reduce yields. Producers are encouraged to use spring-applied options to reduce nitrogen losses from soil. Producers would need to select the fertilizer program that is most economic in their region.

### **Field Testing the Farm Grain Engulfment Hazard Assessment Tool**

By: Wade Meteer

Agriculture

Faculty Douglas Kingman

In a previous study a systems approach was used to complete a hazard analysis of on-farm metal grain storage bins in order to develop and test a farm grain hazard assessment tool (FGHAT) that could predict the increased likelihood of an engulfment. The preliminary study was limited by the fact that most of the farms evaluated were located in Indiana and no commercial grain storage operations were assessed with the tool. The current NIOSH-funded study has broadened the application of the tool by applying it to grain handling farms and commercial operations throughout Illinois. One of four objectives of this project was to field test the FGHAT with farms throughout Illinois.

This study applied a revised version of the farm grain hazard assessment tool developed by the P.I. to farm owners/operators and commercial facility managers who manage grain-handling systems throughout the Midwest. This version of the tool incorporates a likert scale to the 28-question survey used in the previous study. Farm owner/operators and facility managers have been and will continue to be assessed using the tool. Each owner/operator was asked to voluntarily respond to the 28-question assessment tool, as well as provide some background information about their operation. The assessment tool was made available to at least 460 individuals through a distribution effort by 92 Illinois County Farm Bureau offices. By November 1, 2004, approximately 90 farm managers and owners who operate and/or are responsible for the handling and storage of grain have completed the assessment tool.

Appropriate statistical methods will be utilized to fully evaluate the responses to the assessment tool. Statistical methods may include chi-square analysis to distinguish differences of group responses to individual questions, t-tests of group means to determine significant differences, log linear regression analysis to describe response frequency of particular questions, and other techniques. An Illinois State University statistical consultant will be utilized to guide the data analysis. The consultant will review the statistical analysis and recommend additional suitable measures when necessary. The difference in mean scores of farms with a history of engulfment will be compared to farms without a history of engulfment in order to determine whether or not a significant difference in the scores exists. Besides comparing the means of scores between groups, the frequency of high-risk response to specific questions will be analyzed. Tool questions that contribute significantly to differences to group mean scores will be identified.

### **Arming Instructors: Incorporating Approaches to Classroom Management into Training Programs for the Basic Course**

By: Kevin Meyer

Communication

Faculty Cheri Simonds, Stephen Hunt, Brent Simonds

Communication departments increasingly rely on graduate teaching assistants (GTAs) to teach the basic communication course; but, since many basic course training programs fail to adequately address classroom management issues, most GTAs enter the classroom unprepared to confront student misbehaviors. However, literature suggests that by incorporating classroom management issues into training programs, GTAs will be better armed to establish the instructional climate of the classroom and confront student misbehaviors. GTAs who had not received classroom management training (CMT) were given a survey containing closed and open-ended questions in order to guide the creation of a video of sample student misbehavior scenarios and other instructional materials. A second cohort group of GTAs completed the survey twice following the implementation of CMT; once early in the semester and again at the end of the semester following CMT. Results from closed and open-ended data indicate that GTA reports of student misbehavior were reduced, and GTA confidence in the ability to manage these misbehaviors was increased as a result of CMT. Additionally, the results indicate that the frequency and severity of student misbehaviors were reportedly reduced for GTAs who received CMT compared to those GTAs who did not receive CMT.

### **Establishing a Program to Train Teachers of the Deaf in Auditory/Oral Instruction**

By: Erin Myers

Special Education

Faculty Sharon Litchfield, Maribeth Lartz, James Thompson

Establishing a Program to Train Teachers of the Deaf in Auditory/Oral Instruction is a qualitative research project designed to gain insight into a possible training program for teachers of the deaf. The literature review for this study reveals the desire and need for more training in auditory/oral instruction for teachers of the deaf. Opinions from stakeholders have been gathered to better understand the components of a successful training program. Focus groups have been conducted to collect qualitative data. The data have been analyzed to identify categories in the statements from the stakeholders. The focus group participants identified a successful training program as one that includes focus on current technology, basic aural rehabilitation skills, understanding of how a hearing loss affects speech, skills for embedding listening and speaking into lessons, children with multiple needs, early child development, speech and language development, counseling parents, and a well rounded approach to deaf education.

### **Workers' Attitudes toward Open Adoption Practices**

By: Shea Osborne

Social Work

Faculty Jim Raines

Open adoption practices within the United States have been increasing in number because of the changing characteristics of the adopted children and the demand for information from adoption triad members (birth parents, adoptive parents, and adoptees). As a result of this shift, adoption agencies are discovering a need to change their internal practices and their preparation of adoptive families.

There is also a need for agencies to explore their professional's opinions and practices. This study obtained information regarding the opinions and possible biases of child welfare workers toward open adoption practices. This information was obtained by requesting twenty-nine child welfare professionals employed at a private agency to complete an open-ended questionnaire regarding their personal views about the benefits and drawbacks of open adoption practices. Because there are few previous studies in this area, this data reveals some initial information on this topic. During the first level coding phase, the data was analyzed based on similar themes contained in the answers. A second level coding occurred by comparing the categories to determine their relationship with one another. The results showed that workers regard open adoption practices to be positive and beneficial to all members. In fact, the responses showed workers to believe open adoption to be the more ideal practice as opposed to closed adoptions. The implications for practice will be discussed.

### **For Children's Sake: A Program Evaluation**

By: Mary Padgham

Psychology

Faculty Adena Meyers

For Children's Sake, a program that is run through Illinois State University, services women and children who have been exposed to domestic violence. Exposure to domestic violence has been found to have possible negative effects on psychosocial functioning. The For Children's Sake program provides individual as well as group services for these women and children. In this poster a program evaluation will be presented. Demographic information as well as summary statistics of psychosocial functioning will be provided. Information was collected through examining past clients' domestic violence history obtained at intake as well as from psychosocial measures administered at intake and for follow-up information. Measures included the Parenting Stress Index, Beck Depression Inventory, Family Environment Scale, Child Behavior Checklist, Piers-Harris, Kovacs' Children's Depression Inventory, and the Trauma Symptom Checklist for Children. The poster intends to provide information about the general population that For Children's Sake services as well as treatment outcomes.

### **Does Family Solutions Increase Family Stability and Family Safety?**

By: Kendra Parson

Social Work

Faculty Jim Raines

Family preservation programs have been around for decades but research does not always support the effectiveness of these programs. The purpose of this study was to determine the effectiveness of a family preservation program in the Central Illinois area. To determine if this family preservation program within Central Illinois increased family stability and family safety, secondary data was collected from past files of that program from January 2004 to December of 2004. If the family had no more contact with the program and showed stability and safety in the home after 6 months, the family was deemed successful and the program effective for that family. The descriptive statistics that were used are age, gender, race, ethnicity, and marital status. Results of this study will help to prove that family preservation programs are effective and hopefully generate more funding for programs of this kind.

### **A Brief Historical Comparison of Residential Colonial Architecture in the New World as Influenced By the Environment, 1500-1800**

By: DanaLee Pertermann

Sociology and Anthropology

Faculty Elizabeth Scott, Lee Beier

Architectural designs by different colonial groups to the New World, while affected by the building traditions brought with them from their homelands, were strongly influenced by the geographical environment that these groups colonized. Structural differences can be seen among groups colonizing coastal areas and on river floodplains, for example, that are quite different than groups building away from open water. Climate and natural phenomenon such as the flooding of the Mississippi, Atlantic hurricanes, and desert heat played a role in developing physically sound structures that incorporated designs found in the Caribbean, among the Native Americans, as well as invented on the spot out of necessity. These environmental necessities molded building construction into what we now recognize as distinct building styles among these colonial groups.

### **Marital Status and Marital Satisfaction in Relation to Depression in Nursing Home Residents**

By: Jayne Peters

Social Work

Faculty Jim Raines

Past studies have been executed to determine the causes, correlations found, and treatments used for elderly suffering from depression in long-term care facilities. This study looked further into how marital status and perceived marital satisfaction correlate to depression in elderly nursing home residents. Data was collected from the elderly residents of a nursing home located in Midwest Illinois. All residents with passing Mini Mental Exam scores were asked to participate in this study. Thirty residents in all participated in this study. Three residents participated in the marital satisfaction portion of this study. Information regarding marital status and the presence of depression was collected from participants' files. Marital Satisfaction information was gathered through individual resident interviews. The implications will aid social workers and doctors in the treatment of depression in long term care residents.

### **Marital Status and Marital Satisfaction in Relation to Depression in Nursing Home Residents**

By: Jayne Peters

Social Work

Faculty Jim Raines

### **Variations in Gambling Factors Between College Students Raised in North America vs. Those Raised Abroad**

By: Doug Peterson, Chris Murphy, Craig Nelson

Management and Quantitative

Faculty Masoud Hemmasi

Gambling is a significant industry within the United States. A recent phenomenon that has developed in association with the growth of traditional gambling is online betting and gambling. Given that over 86% of all U.S. Citizens have gambled at least once (Yures, 2002) there is a strong likelihood that gambling and online gambling are here to stay. What remains to be determined is whether or not the scoring provided by the South Oaks Gambling Screen (SOGS) varies between university students of domestic vs. international origin in a local university. Our study hopes to provide a foundation for understanding whether or not an established gambling evaluation tool (SOGS) correlates demographic factors such as gender, income, and family history of gambling similarly between students of domestic origin and students of international origin. Data for the study was obtained through an anonymous survey of students at the University of Southern California.

### **Consumer Perceptions, Expectations, and Satisfaction When Choosing Real Estate Agents or Companies**

By: Luke Petry, Catherine Miller, Michael Petersen

Management and Quantitative

Faculty Masoud Hemmasi

Real estate is a dynamic and ever changing industry. Choosing a realtor or specific real estate agent can be difficult even for an experienced consumer. This research aims to understand a consumer's perceptions and expectations of a real estate company. The size of the real estate company will also be examined in the research. Additionally, consumer satisfaction will also be examined in order to determine the specific outcomes in real estate transactions. A total of six hypotheses are tested in this context. To answer these questions, a survey was created and distributed to consumers in McLean County. This presentation will provide an overview of

### **The Impact of Academic Support Services Upon the Academic Performance of NCAA Division I Student-Athletes**

By: Matt Pezdek, Joseph Pantoja, Liina Suurvarik

Management and Quantitative

Faculty Masoud Hemmasi

The proposed study intends to identify which type of academic support services do NCAA Division-I universities use to facilitate learning in order to improve the academic performance of their student athletes. The proposed study will examine the relationship between the number and type of academic support services offered to the student athletes and such outcome factors as the graduation rates and the GPA. Over the past decade the academic standards for collegiate student athletes have continued to increase. Last year, the National Collegiate Athletic Association (NCAA), the voluntary organization through which the nation's colleges and universities govern their athletics programs, imposed even stricter standards for academic eligibility on its member institutions (Suggs 2004). The NCAA is the governing body for more than 1,250 students, hundreds of universities, and dozens of conferences in the United States. Student athletes competing in collegiate athletics, in which their university is a member of the NCAA has long had to abide by the academic standards set by the university as well as by the NCAA (Rishe 2003). The newest standards will take full effect during the next academic year; however, according to a report by Associated Press, as of now, more than 400 Division I teams would not meet the NCAA standards and would lose scholarships.

In order for athletic programs to help student-athletes excel in the classroom and on the field, court, arena, diamond, or course, many universities have academic support systems. The importance of these support systems is becoming more prevalent and a lifeline for athletic departments who try to keep up with the demands of the NCAA and eligibility requirements (Holbrook 2004). These support systems vary in size and scope offering services such as tutoring, computer labs, academic advising, proactive monitoring, learning centers, study centers, supplemental instruction, career counseling services, group study rooms, study skills development workshops, and in some cases special assistance for student-athletes with disabilities.

### **Vienna Summit; 3-4 June 1961**

By: David Pieper

History

Faculty Lee Beier

In 3-4 June 1961, John F. Kennedy held a summit meeting with Nikita Krushchev in Vienna. The historiography that exists surrounding this summit runs the gamut of causality. In my research, I counter this historiography while presenting my own thesis. The reason Kennedy agreed to the summit was because of the importance of maintaining American rights in Berlin and to avoid soviet miscalculations of American intent in Berlin that might be the medium through which war would arise.

### **N-(Hydroxybenzyl)benzamides: pH-Rate Profiles and the Effect of Buffers on the Rate of the Aqueous Reaction**

By: David Przybyla

Chemistry

Faculty Richard Nagorski

Carbinolamides are a vital functionality in a variety of biological processes, most notably as an intermediate in the biosyntheses of mammalian peptide hormones. Not much is known concerning the mechanism by which this functionality reacts or how to catalyze their reaction. Our group has focused on developing methods of synthesizing a variety of carbinolamide derivatives and then studying their aqueous and buffer-catalyzed reaction. For this study, a series of N-(hydroxybenzyl)benzamide carbinolamides have been synthesized, with varying substituents attached to the benzamide portion of the structure, in order to slow down the base-catalyzed reaction in water to a convenient rate. The 4-methyl, 4-methoxy, 4-N,N-dimethyl, 4-chloro, 4-trifluoro, phenyl, and 3-chloro derivatives have been synthesized and characterized. The pH-rate profiles and the effects of buffer on the rate of the aqueous reaction will be presented. The effect of the electron-withdrawing groups on the acid, base, and buffer-catalyzed reactions will be discussed.

### **The Diary of Kate Brock, 1902-1904: Developing a Portrait of a Young School Teacher**

By: Elizabeth Pyle

History

Faculty Lee Beier

This poster presentation explores the uses of a diary to develop the portrait of a young school teacher, Kate Brock, at the turn of the century. The strengths and limitations of using a diary in research will be explored especially in terms of contextual formation: rural culture, teachers' work, and gender issues.

### **University Teacher Immediacy, Social Support, and the Self-Disclosure of University Students with Learning Disabilities**

By: Margaret Quinlan

Special Education

Faculty Maureen Angell, Cheri Simonds, Steve Hunt

College is often the first time that students with learning disabilities (LD) have to advocate for themselves in order to receive necessary accommodations. Unfortunately, many college students with LD are reluctant to do so. As a result, these students may become at risk for academic failure. Often, instructors play a vital role in the support system for students with LD. This qualitative study aimed to discover which instructor behaviors and characteristics help to create classroom environments conducive to the needs of college students with LD thus encouraging them to disclose their disabilities and seek appropriate accommodations. This study utilized a semi-structured protocol to interview 10 university students with LD about their perceptions of university accommodations and teacher immediacy and social support during the disclosure process. Noteworthy themes emerged that may increase positive communication between teachers, administrators, and future students with learning disabilities.

### **The Prevalence of Low Carbohydrate Dieting Among Marathon Runners**

By: Julie Raeder-Schumacher

Family and Consumer Sciences

Faculty Robert Cullen, Mardell Wilson, mawilso@ilstu.edu

Marathon participation is on the rise, and the importance of nutrition for endurance performance is well established. The recent growing popularity of low carbohydrate dieting, documented by the sales of books and specialty foods, is influencing the diet of many Americans. Few studies have examined the prevalence of low carbohydrate dieting among marathoners. Low carbohydrate diets are thought to impair endurance and optimal performance. The prevalence of low carbohydrate dieting, restrictive eating patterns and carbohydrate loading were assessed in marathon runners and compared to the variables BMI, average training miles, gender, age, number of marathon completed, and consecutive years running. A convenience sample of 225 runners was surveyed at a Midwestern metropolitan marathon, 48.5% of total race participants. Of the runners surveyed, 33 (15.6%) had at one time tried a low carbohydrate diet, but only 4 (1.9%) were currently on the diet. The restraint scale portion of the Dutch Eating Behavior Questionnaire was used to assess dietary restraint, and the only statistically significant relationship was with average miles training. No statistically significant differences were found among the carbohydrate loading technique used prior to the event and study variables. These results can assist professionals in understanding the dietary techniques used by marathon runners. Though the general population is promoting low carbohydrate diets, marathon runners do not appear to be gravitating towards them. Dietetics professionals need to be aware of the carbohydrate consumption behaviors of marathon runners in order to provide appropriate nutrition education to ensure healthy energy levels and improve race performances.

### **Factors Affecting "Time to Degree" for Undergraduate Students in the College of Business at ISU**

By: Manoj Rathi, Archana Mandala, Jing Liu

Management and Quantitative

Faculty Masoud Hemmasi

Time taken to complete degree at a college level has been a major topic of concern in the US Education community. Earlier researchers have cited various reasons including academic factors, financial reasons, intellectual and achievement levels of students, personal and family problems, and family background for the longer time taken by students to complete degree requirements. A longer time taken by students to complete degree leads to a number of potential problems including lower academic performance, higher debts, inefficient use of college resources and government subsidies. We plan to study the effect of demographics, entry level credentials of students, academic environment and academic performance in college and financial status of students on their degree completion time. The survey questionnaire also includes questions seeking students' perception about the major reason for longer time to degree and also actions necessary to assist them finish studies earlier.

The research will be done through a survey of students from the college of business studying in their junior and senior years. The results of this research can be of great help to concerned authorities at the university. The study will result in certain recommendations to improve timely degree completion of students.

### **Quasi-Monoclonal Transgenic Mice Do Not Produce Memory Antibody Responses in an Adoptive Transfer System.**

By: Michelle Ratliff

Biological Sciences

Faculty Laura Vogel

Past studies have shown that there is a marked decrease in immune function in aged individuals when compared to young individuals, particularly in antibody responses mediated by B cells. Upon the first exposure to antigen, memory B cells are generated and these cells allow the immune system to respond quicker to a subsequent encounter with that same antigen. This is the principle that vaccines are based on, and in aged individuals, vaccines do not produce the same level of protective immunity. It is not known if this decrease is due to intrinsic defects in the aged B cells, defects in the microenvironment, or both. The research of our laboratory looks specifically for defects in the B cell populations themselves. To do this, we used an adoptive transfer system to study antibody production by memory B cells in an ideal microenvironment, that of a young, healthy system. For these studies, splenic B cells from aged and young transgenic mice (QMk) were transferred into non-transgenic mice of the same genetic background (C57Bl/6) to prevent rejection of the transplant. This transfer allows us to easily identify donor cells and antibodies produced from these cells. One half of the recipients were given a primary immunization 24 hours later with antigen. Three weeks later, donors were sacrificed and spleen cells were pooled. These spleen cells were then divided and cultured in a limiting dilution assay stimulated with LPS for 7 days as well as being transferred into non-transgenic mice of the same genetic background. One half of these recipients were then given a secondary immunization 24 hours later with antigen. Five days later, sera were collected. Both the culture supernatant and the sera were assayed using ELISA. The results indicated no antibodies from the donor cells were produced in this adoptive transfer system upon secondary immunization.

### **Daughters of Erin: Examining the Roles of Irish Women in Ballykilcline, Ireland and Five Points in New York City During the Nineteenth Century Through the Archaeological Ceramic Assemblages**

By: Julie Richko

Sociology and Anthropology

Faculty Charles Orser, Elizabeth Scott

In recent years, historical archaeologists have turned their attention to the histories of individuals who remained history-less. Individuals such as women, minorities, and lower classes have been neglected in the historical record. Archaeology also has undertaken studies of the poor to provide insight into the lives of these individuals in the past. Using archaeological, historical, and literary evidence, this paper examines the roles of Irish women during this period and how that has changed due to various economic and social forces. Marxist archaeology can provide insight into the subject of gender in archaeology. The purpose of the research will be to evaluate the causes for patterns in the archaeological record concerning social position through the comparison of mainly ceramics recovered in two sites: Ballykilcline, Ireland and Five Points in New York City. I will compare the archaeological reports from the Five Points Project (Yamin 2000) and the archaeological assemblage from Ballykilcline, Ireland located in the archaeological lab at Illinois State University. Women, as consumers, were able to exercise an incredible amount of freedom as well as demonstrate "refined" behavior by purchasing goods suitable for their social class. These examples support the idea that women were the ones selecting and manipulating cultural elements in the new environment so that they and their families could be seen as behaving in a manner acceptable at the time.

### **Perspectives of Parents and Guardians of Children with Feeding Problems**

By: Julie Robbins, Korrin Polewski

Speech Pathology and Audiology

Faculty Rita Bailey, Julie Stoner, Maureen Angell

Parents and guardians of children with disabilities or chronic illness travel a difficult road. It has been reported that these parents often have difficulty getting proper diagnosis of their children's conditions, difficulty finding a doctor with experience treating the child's condition, and difficulty with developing an appropriate Individualized Education Program (IEP) in the school setting. Parents/guardians of children with disabilities affecting feeding and swallowing may experience unique concerns across multiple areas, including their child's health, nutrition, social and emotional well-being, and educational experiences. The perspective of parents and caregivers regarding their experiences and concerns related to the management of their children's feeding problems at home and at school has not been investigated. The purpose of this study was to identify the perspectives of parents/guardians of children with feeding problems on these issues. Semi-structured interviews were conducted with parents/guardians of eight children with feeding and/or swallowing disorders. The children ranged in age from 2 through 11 years. Interviews were analyzed using line-by-line coding. Categories were developed, refined, expanded, and/or deleted. Cross-case analysis revealed numerous findings including: (a) the effect of early diagnosis and treatment, (b) difficulty in identifying and accessing adequate feeding management services, (c) the importance of effective teaming in service delivery, (d) discrepancies between early intervention and school based programs, and (e) factors that facilitate or impede appropriate service delivery. Recommendations resulting from this research may assist in the development of improved preparation and training of professionals involved in services for children with disabilities.

### **Acquired Brain Injury: The School Psychologist's Response**

By: Marla Ronk, Brent Sylvester

Psychology

Faculty Alvin House

The incidence of Acquired Brain Injury (ABI) ensures that school psychologists will encounter these students. Moreover, best practices for rehabilitation of ABI suggests the need for a coordinated, multidisciplinary approach involving the family, educational system, and medical providers. Thus, there is a strong need for school psychologists to gain an awareness and understanding of ABI and assume a leadership role in responding to ABI. The primary purpose of this paper presentation is to provide attendees with a basic framework for conceptualizing and responding to common deficits resulting from mild to moderate ABI. Current research literature regarding ABI, as well as examples from a case study involving a student with a complex neurological and family history will be used to provide attendees with a basic awareness and understanding of ABI. An ecological systems framework for conceptualizing the common sequelae and related issues pertinent to ABI will be discussed. Moreover, attendees will learn about several specific strategies, interventions, and resources to effectively respond to ABI with a coordinated, multidisciplinary approach involving the family, educational system, and medical providers.

### **Perceptions of Administrators of Special Education Related to Music Therapy in Special Education**

By: Cindy Ropp, Janet Caldwell, Anne Dixon

Special Education

Faculty Maureen Angell, Paul Vogt

Music therapy has been clinically shown to be beneficial in the treatment and remediation of various disabilities currently served through special education services including autism, behavioral disorders, developmental disabilities, emotional disturbance, hearing and visual impairments, learning disabilities, physical disabilities and others. As public schools are facing more and more financial constraints, it is evident that the creation and/or maintaining of music therapy positions in special education may be increasingly jeopardized. An awareness of special education administrators' perceptions of the efficacy and benefits of music therapy is critical for music therapists seeking employment in special education settings. In addition, this awareness of administrators' perceptions related to music therapy may assist music therapists in efforts to educate special educators about the importance of music therapy. Enhanced perceptions of special educators regarding music therapy programs may lead to further collaboration between special education and music therapy professionals. Investigations of this type have been limited in scope and tend to focus on client and therapist perceptions, rather than those of current or prospective employers. In this study, 81 administrators of special education completed a 30-item survey regarding their perceptions of music therapy efficacy and practice. Responses to questions pertaining to demographics, knowledge levels, and perceptions of music therapy were analyzed. Results showed that personal experience with music therapy programs was the only variable that appeared to have a significant positive effect on administrators' perceptions of music therapy. Implications of this study's results and recommendations for educational programming and professional preparation are discussed.

### **An Exploratory Study of Burnout in Adolescent Substance Abuse Treatment Providers**

By: Michelle Rotter

Social Work

Faculty Kathy Wehrmann

The purpose of this study is to investigate the extent of "burnout" in Adolescent Residential Substance Abuse treatment providers at Chestnut Health System in Bloomington, Illinois. There is little research on burnout in the literature related to substance abuse treatment providers but employee burnout appears to lead to high rates of employee turnover. Such turnover negatively impacts organization functioning due to decrease in productivity and interrupted service to clients, which ultimately affects the clients who are not receiving the quality services that they need.

The sampling frame for this study will be all employees of Chestnut Health Systems' inpatient adolescent substance abuse treatment program, including unit supervisors, primary counselors, residential counselors, recreation staff, educational staff, and medical staff. A convenience sample of approximately 50 employees will be selected to participate in this study, with no preference to gender or age. All participants will be asked to complete the Maslach Burnout Inventory, a 22 question survey related to perceived rates of emotional exhaustion, depersonalization, and personal accomplishment. This survey will be accompanied by 7 demographic questions including age, sex, level of education, length of employment, hours worked per week, annual income, and personal recovery experience.

This research project uses an exploratory cross-sectional design. Participants will be asked to complete the Maslach Burnout Inventory and the demographic questions one time. Once the surveys are collected, data will be analyzed through univariate descriptive statistics and some limited bivariate analysis. Bivariate analysis will be performed using inferential statistics of chi-square, t-test, and one-way analysis of variance, as appropriate to the variable's level of measurement.

The goal of this research study is to learn more about the levels of burnout in adolescent substance abuse treatment providers, and if demographic information about the worker (i.e. age, sex, educational background) has an impact on an employee's level of burnout. Through the use of the Maslach Burnout Inventory, it will also be determined whether employees experience burnout more frequently due to emotional exhaustion, depersonalization, or personal accomplishment. Although this research project is still in progress, it is hoped that agencies providing adolescent substance abuse treatment will be able to use the information gained by this study to develop appropriate staff training related to burnout, thus helping workers provide more effective services to their clients.

### **pH-Rate Profile and Buffer Catalysis of the Reaction of a Novel Series of N-(Hydroxybenzyl)acetamides**

By: Matthew Sansone

Chemistry

Faculty Richard Nagorski

Carbinolamides are a fundamentally important functionality in many biological processes. For example, carbinolamides are intermediates in the biosynthesis of mammalian alpha-amidated peptides and the functionality is necessary for the bioactivity of bicyclomycin, a commercially available antibiotic. Despite the importance of carbinolamides in these processes, very little work has been done to understand the affect of structure on the reactivity of these compounds. The lack of prior studies involving structural variation of the carbinolamide can be traced back to synthetic limitations. In the work presented here, these limitations have been overcome, a new class of carbinolamides has been synthesized, and the preliminary kinetic studies, as well as preliminary study of buffer catalysis, of the aqueous reactions as a function of pH are also reported.

### **A Study on Women Entrepreneurs and Their Personality Characteristics**

By: Michelle Schmitt, Emily Harlow, Kelly Ideran

Management and Quantitative

Faculty Masoud Hemmasi

Gartner (1988) called for abandonment of the trait approach when studying entrepreneurs, although recent literature developments has provided new evidence for the reinstatement of this approach (Shane & Vankataraman, 2000). The purpose of the present study is to determine whether personality characteristics, specifically internal locus of control, leadership behaviors, need for autonomy, need for achievement, risk taking propensity, and self-esteem, are a) stronger among actual female entrepreneurs than female students interested in entrepreneurial studies, and b) stronger among those students interested in entrepreneurial studies than females not interested in entrepreneurial studies. Data was collected for actual entrepreneurs by providing a link to a website containing the survey instrument, on an electronic newsletter for members of four women entrepreneur organizations. Data was collected for the students by personally administering the surveys to entrepreneurship classes. One way ANOVA tests were conducted concluding that need for achievement, need for autonomy, leadership behaviors, risk taking propensity and self-esteem were more prevalent among actual female entrepreneurs than females interested in entrepreneurial studies. The present research also concluded with the one way ANOVA tests that need for achievement, need for autonomy, and self-esteem were more prevalent among female students interested in entrepreneurial studies than female students not interested in entrepreneurial studies.

### **Entrepreneurs and Personality: Relating Recent Developments from the Personality Literature to Entrepreneurs**

By: Michelle Schmitt

Management and Quantitative

Faculty Leon Schjoedt, Mark Hoelscher

After Gartner's (1988) call for abandonment of the research towards the personality characteristics of entrepreneurs, a limited amount of research has been conducted. Gartner suggested that the research, which has been conducted, has been too inconsistent. Shane and Venkataraman (2000) suggested sufficient evidence that this trait research should be continued. Throughout this paper there will be an attempt to answer the question "why some, and not others, start new ventures and what factors influence entrepreneurial success?". The paper will also attempt to suggest that the Big Five Personality Factor Model can be sufficiently used to assess entrepreneur's personality differences and will also be able to assist in answering this question.

### **Evaluation of Fitness and Physical Activity Behaviors in KNR 113 Personal Fitness Students**

By: Jill Schneider, Nate Henry

Kinesiology and Recreation

Faculty Kristen Lagally

Only 22% of American adults currently meet the Surgeon General's recommendations for physical activity (5 times a week for at least 30 minutes). Thus, there is a need to educate Americans on the importance of physical activity and how to incorporate physical activity into their lifestyles. KNR 113, Personal Fitness, is a general education class designed to provide ISU students with an understanding of physical activity and physical fitness. In this class, students undergo a battery of fitness tests and participate in lecture and activity labs four times per week. Although students' knowledge of physical fitness is assessed by instructors, the effects that this class has on students' fitness and attitudes towards physical activity has not been evaluated. The purpose of this study is to examine the effects of 16 weeks of guided physical activity and physical activity instruction in KNR 113 on the fitness and attitudes toward physical activity of ISU students. For the study, 135 KNR 113 students will undergo body composition, muscular strength and endurance, flexibility and cardiorespiratory fitness testing at the beginning and end of the semester. In addition, students will be asked to fill out four surveys to assess their attitudes toward physical activity and participation in physical activity. These surveys include: Physical Activity Recall, Feelings About Physical Activity, Self Efficacy Toward Physical Activity, and Intended Physical Activity Behaviors. Pre and post fitness scores and survey data will be compared. Approximately 25 students from other non-activity courses have been recruited to serve as a control group and will be evaluated using identical pre and post fitness tests and surveys. The pretest data indicate that the KNR 113 students fall in the well below average category (women) and average category (men) in muscular strength and above average category (women) and average category (men) for cardiorespiratory fitness according to the American College of Sports Medicine. Control subjects do not differ from the KNR 113 students except for the male controls' strength, which falls in the below average category. It is hypothesized that KNR 113 students will show statistically significant ( $p < .05$ ) improvements in fitness and attitudes toward physical activity as a result of their participation in the course. The control group is not expected to show improvements in fitness or attitudes toward physical activity.

### **Factors That Motivate Parents to Begin Fostering**

By: T. Scott Schuerr

Social Work

Faculty Jim Raines

Five foster families from a central Illinois child welfare agency were randomly chosen to participate in an exploratory, open-ended interview to discuss their motivations to begin foster parenting. Participants were chosen from a list of 42 traditional and specialized foster families licensed through the agency. During the interview, participants were encouraged to reflect on what factors influenced them to begin foster care, and what fear factors they had to overcome before they were willing to begin foster care. Common themes were coded and organized according to similar topics. Eight demographic variables were also collected in a brief survey after the interview. With this data it is hoped that social workers and foster care recruiters will be more successful in recruiting foster parents. Social workers and recruiters will accomplish this by being better prepared to address potential foster parent concerns, and being able to appeal to those factors that are most likely to motivate parents to consider foster care.

### **Faithfuldomain**

By: Molly Scott

Art

Faculty Patricia Badani-Rosato, Gary Justis, Scott Rankin

Faithfuldomain is an art project in which individuals are asked to place a dot on something that represents faithfulness or fickleness. This project challenges traditional notions of authorship, in that the viewer is invited to become a participant in the work. It also enlarges upon the traditional concept of the gallery by encompassing a viewer's singular world. Further, because the work operates both in physical space and in the electronic environment at "faithfuldomain.org", it questions the separation of actual and virtual experiences. The cumulative result will be a collective portrait of all those who have contributed. Because participants will engage this project from different perspectives, the points of intersection between their beliefs and our cultural consciousness may not be reduced to simple terms. By incorporating multiple levels of experience—the physical sensation of the dots, the intellectual essence of the decisions, and the active nature of the task—I hope to define many possibilities of Faithful or Fickle for the participants and the audience.

### **Quality of Professional Development for Teachers and its Impact on Student Achievement**

By: Tallulah Shinault

Educational Administration and Foundations

Faculty Zeng Lin, Paul Vogt, Amelia Adkins

This study focuses on in-service teacher's professional development as a critical mechanism to improve student achievement. Research data will be obtained from the NELS 1988-2000 database. The researcher examines the perception of teachers on the quality of their professional development and in-service activities offered by their schools and its impact on student achievement as measured by standardized test scores in math and science. Descriptive statistics and a multiple regression analysis show that higher quality of professional development (such as workshops, university coursework, in-school collaboration) is positively associated with students' performance in math and science standardized tests.

### **This is Your Story: Theories of Authorship in Video Games**

By: Alex Skorpinski

English

Faculty Amy Robillard

Much scholarship within the field of English has been dedicated to the study of theories of authorship, ranging from Barthes' declaration of the author's death to Foucault's discussion of the author function. Yet, while authorship theorists acknowledge the role of the reader in creating meaning, they have yet to consider the reader's role in establishing the conception of authorship in video games.

I will demonstrate that the connection between traditional texts and video games affects the field's understanding of the way in which the author function applies. Whereas in written texts, it is the writer that is identified as the "genius behind the work," in the case of video games, the collaboration between the script writer, programmer, visual designer, and even musical composer takes the "classic" role of the author in creating interactive texts. In such a case Foucault's author function does not apply to any of these individual people, or even the whole of these groups, but to the company that produces the games, as well as, in the case of exclusive titles (those only released for one particular system), the company which produces the platform on which the game is played.

However, in examining the conception of authorship in an active text, such as a video game, I will argue that readers are more conscious of their participation in the formation of the narrative. I will address how the interactivity of video games allows gamers/readers to move beyond the conception of their traditional role as passive recipients of a text, and more explicitly take part in the creation of the narrative, thus blurring the lines between author and audience. Indeed this interactivity exists to the degree where the players of games are shaping the way the story and plot develops depending upon the decisions they make.

### **Production Design and Implementation of Mary Zimmerman's "Metamorphoses"**

By: Stephanette Smith, Kevin Bautch, Theresa Lipinski

Theatre

Faculty Julie Mack, John Stark, Lauren Lowell

The purpose of this exhibit is to show the process and execution of a theatrical production design. As the scenic, costume and lighting designers, we each sought to create a cohesive visual design without sacrificing our individual aesthetics. We worked, with the director, to transform our concepts in the text into a tangible world.

### **Child Expectation Effects of ADHD Symptoms and Medication Status on Children's Social Interactions**

By: Brian Spicer

Psychology

Faculty Steven Landau, Abby Watson

Children with Attention-deficit/Hyperactivity Disorder (ADHD) have seriously disturbed peer relations (Landau, Milich, & Diener, 1998). They have few friends and typically play with children much younger than themselves. While most researchers assume the symptoms of ADHD account for the disturbed peer relations, other factors, such as taking psychostimulant medication, may be stigmatizing and further exacerbate peer problems. Previous research on expectancy effects has demonstrated that an individual's knowledge about a person or group of people has a significant impact on how those individuals are perceived and treated (Beck, Fritz, Keller & Dennis, 2000; Bell & Morgan, 2000; Bromfield, Weisz, & Messer, 1986; Rosenthal & Jacobsen, 1968). Research on stigma and expectancies with children has shown that children who expect to interact with a child who has symptoms of ADHD act less friendly and more socially reserved than those children who expect to interact with a child without ADHD symptoms (Harris, Milich, Johnston, & Hoover, 1990; Harris, Milich, Corbitt, Hoover, & Brady, 1992). The purpose of the present study is to investigate child expectation effects of ADHD symptoms and medication status in a laboratory setting involving dyadic play. Participants will consist of 160 third- and fourth-grade boys recruited from public schools. Participants will be assigned to one of four expectancy conditions: symptoms of ADHD plus taking medication at school, symptoms of ADHD and not taking medication, no symptoms of ADHD and taking medication, or a neutral expectancy. Boys will work collaboratively on a task, after which each will provide ratings of his affect towards the task, his performance, his perceptions of his partner's performance, likability towards his partner, and ADHD symptom severity attributed to his partner. To determine the durability of initial impressions, the boys will then reconvene to complete a similar task, after which they will complete all self-report measures again. In addition, the dyadic interactions will be videotaped and observational codings of cooperative behaviors, uncooperative behaviors, friendliness, and hostility will be made. It is expected that describing a boy as having symptoms of ADHD will have more stigmatizing effects than not portraying him as presenting ADHD symptoms. It is also expected that describing a boy as having symptoms of ADHD plus taking medication will result in the most stigmatizing effect. Preliminary data will be presented, and implications for the implementation of school-based pharmacological treatment of ADHD will be discussed.

### **Childhood Aggressive Relationships: How do Self-Reports and Peer-Nominations Compare?**

By: Jonathan Stagg, Jennifer Benz, Chris Ratajski

Psychology

Faculty Kathryn Hoff, Marla Reese-Weber

Researchers may use self-reports and/or peer-reports when examining various types of childhood aggressive relationships. Self-reports are simple to use but there is some question regarding their ability to measure aggressive behavior. Extensive studies have not been done to determine if the two report formats produce similar results. The current study uses factor structures, reliability, correlations, and mean differences in friendship quality to compare self-reports and peer-reports. In this study, 239 sixth-graders took part in a self-report behavioral description survey, a peer-report behavioral description survey, and a self-report Friendship Quality Measure. The results of the self-report and peer-report behavioral description surveys suggest that the factors produced by them were associated but distinct. The results of the data indicated that under the self-report condition there were two mean differences for negative friendship qualities (non-aggressive = 17.2; socially = 35.7) (non-aggressive = 17.2; combined = 35.0) and under the peer-report there was only one mean difference (non-aggressive = 18.8; socially = 28.38). For positive friendship qualities, the self-report resulted in one mean difference (non-aggressive = 49.9; combined = 38.8) and the peer-report resulted in no mean differences. Thus, there may be a reporting bias under the self-report due to the greater number of mean differences. Consequently, peer-reports are more precise than self-reports and result in less reporting biases.

**Assessment of Students with Autism**

By: Christy Stewart, Laura Dambek

Psychology

Faculty Karla Doepke

McLean County Unit District #5 revised their guidelines for assessment of children with autism in December 2003. These revisions describe goals and procedures of assessment that are closely aligned with best practices in assessment of children with autism. The purpose of this study was to evaluate the degree to which existing traditional standardized assessment of students with autism within the district meets the newly revised guidelines and to identify specific aspects of assessment of these students that need improvement or changes to conform to the revised guidelines. A list of all children with autism receiving special education services within the district was compiled. Cumulative student files were then randomly selected from the list and reviewed by the experimenters. The administration dates of all traditional standardized tests were noted to determine the scope and continuity of assessment and then compared to the district guidelines for assessment of children with autism. Recommendations for changes in assessment of students with autism are made and implications for educational performance of these students are discussed.

**The Effect of Mentoring on Job Satisfaction**

By: Russell Stott, Jim Dunne, Robyn Schuline

Management and Quantitative

Faculty Masoud Hemmasi, Jim Dunne, Robyn Schuline

The objective of this study is to improve the understanding of mentoring and how it, along with other variables, affects a protégé's intrinsic job satisfaction. This research expands upon existing literature by re-examining the relationship between mentor characteristics and protégé job satisfaction. The focus is on understanding the impact that meeting frequency, relationship formality, mentorship functions, and mentor-protégé reporting relationships have on mentoring outcomes. It also looks into the effect of the protégé's work experience.

In U.S. corporations, a mentor is typically seen as a wise and trusted adviser for a less experienced person. A mentor will often build a supportive relationship with his or her protégé, which will result in the mentoring process. This process benefits the mentor, protégé and the business organization. The mentor gains a commitment to shared learning and the ability to provide other employees with their experience in both success and avoidance of failure within the organization. The process allows the protégé to develop to his or her full potential and develop a vision of the future. When businesses use mentoring, they can break down old cultural barriers and develop community partnerships within the organization. The data used in this study is from a random sample of self-evaluation surveys. The participants of the survey were voluntary. The surveys were collected from three different organizational settings: a university, a manufacturing company, and a financial services company.

The knowledge gained by this research will help educational institutions and business organizations better support the development of effective mentoring relationships. It also gives mentors insight into how to improve the mentoring experience for both the mentor and protégé.

**The Roots of War: An Analysis of the Tactics of World War One**

By: Candace Summers

History

Faculty Patrice Olsen

This essay investigates into the ways the strategies on the battlefields of World War One were influenced by longer traditions of European warfare. Drawing upon the concept of the longue duree, it argues that the soldiers' mentalities and strategies during World War One could not be explained without taking into consideration Napoleonic strategies of warfare and other later strategies of 19th and early 20th century tactics of war. In the process, I demonstrate in opposition to certain traditions in existing historiography that the First World War was in fact the culminating point of European traditions of warfare for nearly two centuries.

When analyzing the military tactics of the First World War, the previous tactics used in the centuries leading up to the war must be taken into consideration, by using the methodology of the longue duree, developed by Fernand Braudel, one of the founders of the Annales School. The members of the Annales School used the idea of the longue duree to challenge the ideas on periodization and that history needs to be looked at through longer spans of time.

By looking at the expanded events of history, the historian can better understand how the particular event he or she is focusing on came to be. Braudel would argue that by restraining history to the short time span, it would cloud the event and not allow for a more complete picture to be created, being that "the short time span is the most capricious and the most delusive of all." History is meant to be viewed as a series of interconnected events, each having an influence on the other in some way.

### **No More Sugar and Spice: A Semiotic and Feminist Analysis of Thirteen**

By: Erin Sutherland

Communication

Faculty John Baldwin

The movie Thirteen provides a detailed look at two teenage girls whose lives seem to be dominated by the struggle to make it in a world that forces them to succumb to the pressures of theft, sex, and drug abuse. The two protagonists engage in behaviors that seem shocking and tragic, as cultural ideals seldom frame girls in a light that deviates from the sugar-and-spice category. Thirteen provides the viewer with a brutal portrayal of girl-world existence.

This depiction can be viewed through the lens of semiotic analysis. Semiology is concerned with how meaning is generated in texts such as films, books, advertisements, and other forms of art. The study of semiotics focuses on meaning that is derived from the arbitrary relationship between an image or sound and the thought that comes to mind that is linked to some reality. For example, the word cat, the signifier, and the actual animal, the signified, have an arbitrary relationship with one another. There is nothing cat-like in the word cat. Therefore, a sign is the relationship between the signifier and the signified.

Thirteen's depiction of girl-world can be analyzed through the lens of semiotic analysis, as images of the girls and their behaviors can be compared in terms of real teenage girl existence and the assumptions and ideas embedded within the images themselves. Together, these multiple meanings create a sign system that portrays the girls in a specific light.

This portrayal can also be investigated through feminist analysis as these sign systems seem to reinforce gender stereotypes and women's oppression as victims in the culture in which they live. However, Thirteen is billed as a semi-autobiographical account of the real life struggle of one of the movie's co-stars. Therefore, even though the depiction of girl-world life may be based in objective reality, it is important to determine whether the film empowers women or merely consigns them to traditional oppressive roles.

### **Haptic and Visual Perception of Whether an Obstacle Can Be Stepped Over**

By: Kona Taylor

Psychology

Faculty Jeff Wagman, Scott Jordan

In general, perceiving an obstacle to locomotion requires that an individual look at an object and compare the height of the object to their own body, particularly their leg length (which limits the height to which the leg can be raised, Warren, 1984). The first experiment investigates whether individuals are able to perceive whether an obstacle could be stepped over by looking at that obstacle or by feeling it with a hand-held wooden rod (while blindfolded). Pilot data has indicated that in each condition, participants will successfully compare the height of the obstacle to their leg length and thus successfully perceive whether the obstacle can be stepped over. The second experiment then examines if an unevenly weighted object causes people to misperceive the location of their arm. As in Experiment 1, it is expected that perception of whether the obstacle can be stepped over will depend on the leg length of individual. However, we also expect that perception will be influenced by how the object is weighted. The results of these experiments have potential implications for the understanding of perception by touch and for the design of navigation aids of for the visually impaired.

### **Measuring Condom Application Skills and Assertive Sexual Communication in Women at High Risk for HIV**

By: LaToya Taylor

Criminal Justice Sciences

Faculty Beverly Smith, Caroline Mallory

LaToya Taylor received her bachelors degree in criminal justice in 1998 and is presently a master's student at Illinois State University in criminal justice science. She is a research assistant on Women First! a project funded by NIMH, to test an intervention to prevent HIV among women at high risk.

Self-efficacy for condom use and assertive sexual communication skills among women are related to condom use. However, the reliability and validity of scales used to measure these concepts have not been widely reported. This study examines internal consistency and construct validity of three scales for use in a high risk population. A cross-sectional, descriptive correlational design was used to collect and analyze data from 75 women recruited from sexually transmitted infection clinics. Participants were 18 to 51 years old ( $M=27$ ,  $SD=9.2$ ), English-speaking and HIV negative. Most women were White (69%), heterosexual, single, childless, and had a high school degree. The Problems with Condoms Questionnaire (PCQ) is a 15 item scale measuring male and female condoms application skills. Cronbach's Alpha for the PCQ was .72 ( $n=68$ ). Exploratory factor analysis yielded a two-factor model explaining 56% of the variance. The Modified Condom Application Skills Scale (MCASS) is a 19 item scale that measures participant's level of comfort with using male and female condoms. Low response rates limited analyses to male condom items ( $M=.93$ ,  $n=45$ ), and a two-factor model explained 70% of the variance. The Modified Sexual Communication and Assertiveness Questionnaire (MSCAQ) is a 30 item scale measuring the frequency that women engage their partners in assertive sexual communication. Factor analysis yielded a two-factor model for two of the three subscales for the MSCAQ explaining 46% and 52% of the variance. Cronbach's  $\alpha$  for the MSCAQ was .83 ( $n=70$ ) for subscale 1; subscale 2 was .63 ( $n=34$ ); subscale 3 was .66 ( $n=71$ ). Additional analyses are required to determine the reliability and validity testing for female condom scales of using these scales with women at risk for HIV.

### **Dunfermline: A Study in Scottish Emigration to the Americas**

By: Mark Taylor

History

Faculty Lee Beier

Significant emigration from Western Fife occurred during the eighteenth and nineteenth centuries, resulting in significant populations of Scots in America and in the colonies of the British Empire. Dunfermline in Western Fife was the ancient capitol of Scotland, and in the eighteenth century, a center of the hand-loom weaving industry. Geographically it is placed in the center of Scotland at the edge of the highlands. Economic and political developments in the early modern era had a significant impact on this city. Because of its location, it experienced the effects of the highland clearances, and was well positioned by agricultural areas and shipping routes to play a major role in the weaving industry. Over a hundred year period from the highland clearances to the collapse of the hand-loom weaving industry, Dunfermline was at the center of population migration, including emigration to the Americas, Australia, and other colonies. This research will evaluate the patterns and causes of population movements.

### **Investigating Students' Understanding of Trigonometry Through the Use of Modeling: A Potential Beginning for the Instructional Sequence**

By: Kevin Thompson

Mathematics

Faculty Beverly Rich

Traditionally the concept of function has focused entirely on symbolic manipulation. More recently, trends have developed to move to a deeper level of understanding of the function concept by creating situations for students to investigate in order to create meaning. This study focused on trigonometry. The study of trigonometry is a very critical component for calculus as well as other mathematics. The research project was designed to gain a deeper understanding of students' conceptions about trigonometry and provide a possible manner to approach the concept from a meaningful starting point. Mathematics teachers have even encouraged a serious gap by separating the experiential world of students from classroom mathematics. Therefore, an experientially real starting point is advocated for instruction that would allow students to make such a connection. The theoretical background for the study is Realistic Mathematics Education (RME).

This research was accomplished through the use of a problem scenario and a modeling experiment as a part of a high school precalculus course. The students investigated the trigonometric functions by attempting to model the uniform circular motion of a point on the circumference of a wheel while working in groups. The concepts of sine and cosine emerged from this modeling exercise. Technology was used to facilitate the classroom motivation.

The questions that guided the study were: Will context support a shift in thinking that allows the understanding to transfer to situations that do not involve the specific context of the activity? Will context and modeling produce greater flexibility in use of representations—graphs, tables, algebraic expressions?

The method for gaining this understanding was qualitative, employing observations, interviews, and analysis of documents. The participants' interactions as they related to the topic were observed during the class period.

Several participants were interviewed to elicit their perspectives on and perceptions of the topic. In addition, questions were posed that sought to understand the ability of students to use what they had learned from the modeling experiment in problems that are similar as well as problems that are related but involving a different context or no context at all.

### **Alternative Input Device**

By: Christopher Tice

Art

Faculty Matthew Smith

The focus of my current research is the creation of alternative input devices for use in the fine arts field. This research involves the creation of a physical component and the supporting software to enable the hardware and software to communicate. The controllers use both commercially available sensors and custom sensors created for the specific needs of the device. These devices serve as a platform for the exploration of circuit design, human computer interface, and aesthetic concerns. The functionality of these devices is configured by the software created by the user for specific applications. Some of these applications include but are not limited to, music, video, and interactive programs. These devices can be presented in several modes. They require a computer that has Cycling74's Max/MSP/Jitter installed and can output to the computer screen, audio system, or through a video projector.

### **Dispositions of Preservice History, English, and Mathematics Educators Toward Teaching in Inclusive Classrooms**

By: Leslie Tish

Special Education

Faculty Paula Crowley

Teachers who graduate from Illinois State University are "responsive to the moral and intellectual demands a democratic society places on them." This includes "sensitivity toward the varieties of individual and cultural diversity" as well as "knowledge and appreciation of the diversity among learners" and "understanding what affects learning and appropriate teaching strategies." In order to uphold these standards, we must determine whether Illinois State University's teachers are prepared for the diverse classrooms that await them. The purpose of this ongoing research study is to determine whether pre-service educators are being well prepared for teaching students with disabilities in their classrooms. Currently there is no special education requirement for secondary preservice educators, despite the fact that students with special needs will account for approximately 10% of the students in their classrooms. This study focuses on analyzing the disposition of students in math, history, and English teacher preparation programs toward teaching in inclusive classrooms. Specifically, this poster attempts to present both qualitative and quantitative data on students' dispositions toward teaching students with special needs, as well as their willingness to take additional courses in special education.

### **US's Imperialism in Cuba**

By: Matt Townsend

History

Faculty Lee Beier

This essay examines the impact of U.S. policies on Cuban economy and polity in the period between 1933 and 1959. I will present the case that U.S. economic policy contributed to the decline of Cuban living standards during this period. Further, contend that U.S. policies played a crucial role in the rise and fall of the Batista regime.

### **Internationalism in the Harlem Renaissance**

By: Moussa Traore

English

Faculty Ronald Strickland, Christopher Breu, K. Aaron Smith

The Harlem Renaissance movement is the cultural, artistic and political activities which marked America in the 1920s-1935. The main aim of the movement was to uplift the American Negro through art work, while destroying the stereotypes which the black Americans were associated with. The Harlem Renaissance gave birth to the New Negro who was the embodiment of the all the traits and values which Black Americans wanted to be associated with.

The Harlem Renaissance movement originated in America and involved a large number of talented American artists, and this may account for the fact that most readers consider the movement as an entirely American artistic movement, which originated and reached its paroxysm in America, did not have any link with any other part of the world. A very important "portion" of the Harlem Renaissance took place in Europe, especially in France, and also in Africa. The aim of this research is to investigate carefully the French and African ramifications of the Harlem Renaissance.

The paper presents the various interactions which the African American writers had with the African Francophone writers, especially in the cafes of Paris. The African Francophone writers and the African American writers developed these rapports because they were all engaged in the same battle: French colonization in Africa (assimilation) was as brutal and cruel as the slavery and racism which the African American was facing: Negritude movement becomes the French equivalent of the American New Negro movement.

The First World War, the Paris based bilingual magazines, the translation of works from French into English and vice versa facilitated the exchange between the artists of the two camps. The paper shows how the New Negro galvanized the Francophones in the fight for independence in Africa. The last part of the papers exposes the similarities between the Harlem renaissance literary works and contemporary African literature, juxtaposing Sembene Ousmane's Black Docker, Camara Laye's The African Child, John Munonye's The Only Son and Oil Man of Obange to Jean Toomer's Cane and Claud McKay's Home to Harlem.

### **Computational Studies of Sulfur Trioxide-Water Complexes Employing Ab Initio and Density Functional Methods with Pople and Correlation-Consistent Basis Sets**

By: Mary Van der Hoven

Chemistry

Faculty Jean Standard

Intermolecular complexes of sulfur trioxide and water have received a great deal of attention recently due to their importance in atmospheric chemistry.

Recent work in our group has shown that it is essential to employ large basis sets, particularly for sulfur, in order to obtain converged descriptions of the geometries and energies of sulfur trioxide-water complexes from ab initio quantum mechanical calculations [J. M. Standard, I. S. Buckner, and D. H. Pulsifer, *Theochem* 673, 1 (2004)]. The previous study indicates that significant basis set effects are observed for sulfur trioxide-water complexes with up to three water molecules as well as for transition states leading to formation of sulfuric acid. For example, the S-O intermolecular distance in the 2H<sub>2</sub>O-SO<sub>3</sub> complex decreases from 2.32 Å at the MP2/6-311++G(d,p) level to 2.11 Å at the MP2/6-311++G(2df,2pd) level, while the activation energy for conversion of the 2H<sub>2</sub>O-SO<sub>3</sub> complex to H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O decreases from 13 to 7 kcal/mol at the same levels of theory. These basis set effects are attributed primarily to inclusion of f-type polarization functions on the sulfur atoms in Pople-type basis sets. Results will be presented from continuing ab initio MP2 and CCSD(T) studies of sulfur trioxide-water complexes employing correlation consistent basis sets with tight d functions on sulfur, aug-cc-pV(X+d)Z, X=D, T, Q, for complexes containing up to four water molecules. In addition, results of benchmark calculations employing density functional theory and correlation-consistent basis sets with tight d functions will be presented for sulfur trioxide-water complexes containing up to six water molecules.

### **Characterizing Preservice Teachers' Thinking in Estimation**

By: Tanya Volkova

Mathematics

Faculty Norma Presmeg

The study was conducted to gain a deeper understanding of preservice teachers' thinking in estimation. The focus of the study was on various strategies preservice teachers use in solving problems that require computational estimation. The method for gaining this understanding was qualitative, employing classroom observations of preservice teachers' interactions, interviews, and analysis of their work. The participants were interviewed to elicit their thinking with regard to computational estimation. The preservice teachers' responses were analyzed through the lens of Estimation Thinking Framework (Volkova, 2004). The preliminary results of the current investigation show that the descriptors of levels in the Estimation Thinking Framework will be applicable to characterizing preservice teachers' thinking with regard to estimation, even though the framework was developed based on middle school students' estimation strategies. It is anticipated that the findings of the study will shed light on preservice teachers' thinking in computational estimation and on their choice of particular estimation strategies. The results of the current study are expected to clarify whether the development of preservice teachers' thinking in estimation is consistent with the developmental continuum identified in the Estimation Thinking Framework.

### **Does Family Matter? Family Involvement as a Predictor of Outcome in Adolescent Substance Abuse Treatment.**

By: Tera Wagener

Social Work

Faculty Jim Raines

Review of the literature suggests that substance abuse treatment with adolescents is more effective when it is a family-based model. This study considers family involvement within treatment as a predictor of outcome for thirty adolescents who participated in inpatient substance abuse treatment during 2004. Client files were utilized for secondary analysis and information was recorded on a coding sheet. Analysis will focus on the degree of family involvement throughout the adolescent's treatment and seek to find relationships affecting outcome. Results are expected to support the importance of encouraging family involvement in social work practice with substance abusing adolescents.

### **Levels-of-Processing Effects in Recognition Familiarity and Conceptual Automatic Memory**

By: Christopher Wahlheim

Psychology

Faculty Dawn McBride

Levels-of-processing (LoP) effects have been repeatedly demonstrated in recognition familiarity and conceptual automatic memory tasks, however, LoP effects have not been reliably demonstrated in perceptual automatic memory tasks (Yonelinas, 2002). The current study provides a direct test of the effects of conceptual processes (i.e., LoP) on automatic processes in a recognition task, word association task (conceptual), and a word stem completion task (perceptual). The Process Dissociation Procedure (Jacoby, 1991) was used to provide estimates of the contribution of conscious and automatic memory in each task. LoP effects were demonstrated in recognition familiarity and conceptual automatic memory, but not in perceptual automatic memory. These results provide support for the functional equivalence of recognition familiarity and conceptual automatic memory.

### **Prioritizing Education: A Passage to Success for Asian American Students**

By: Weirong Wang

Educational Administration and Foundations

Faculty Zeng Lin

Asian Americans have consistently outperformed all other ethnic groups, including white Americans in state and national standardized tests. Despite the diversity of the Asian Americans as an ethnic group, their collective strategies in promoting academic success may throw additional light on the No Child Left Behind movement. This study is intended to find the patterns of Asian American students' educational orientation versus that of their Caucasian counterparts based on statistical analysis of the National Educational Longitudinal Survey of 1988 through 2000 (NELS). The initial research shows that valuing, and thus prioritizing education, is the overall strategy for Asian Americans' academic success. The indication of prioritizing education includes that Asian children do significantly more hours of homework each week, have more parental restriction on TV time, and spend more money on education and less on personal enjoyment than their Caucasian peers. The fact that Asian American students pursue economic/career success through educational channels reveals a preferred value of "delayed gratification" which may be a cultural trait. To further understand their strategies, I investigated their belief system and find that Asian American parents have higher educational expectations for their children. As a result, significantly more Asian students believe in the importance of education than their Caucasian peers.

**Alexandra Kollontai: Feminist or Socialist?**

By: Russell West

History

Faculty Lee Beier

This research was done on Alexandra Kollontai to determine if she was a true socialist or a feminist. I actually found in my research that both groups considered her to be centered in the other ideology. She was exiled by the Soviet Union for being a feminist, but rejected by the feminists for being a socialist. In my research I found that actually Kollontai used socialist ideals to achieve her ultimate goal and that was equal rights for women, not only in the Soviet Union, but also elsewhere. I have used a series of speeches, as well as various books on the woman. I discuss her background as well as the time in which she lived that influenced her to make the sweeping changes for women that she did.

**Effects of Three Reading Error-Correction Procedures on Isolated Word Fluency and Further Generalization in Reading Tasks**

By: Jennifer Wierzbicki

Psychology

Faculty Gary Cates

An alternating-treatment design was used in the current study to investigate the effects of three reading error-correction procedures (Word Supply, Sentence Repeat, and Word Drill) on improving word fluency in fourth grade students who had been identified as struggling in their classroom reading. Subjects met with investigators for ten sessions over two weeks to work towards greater word fluency. Overall improvement of subjects' pronunciation (fluency) of previously missed words in grade-level reading passages was assessed, as well as generalization of previously missed words in new text passages. This study examined not only the effectiveness of each procedure on fluency improvement, but also the relative efficiency of implementing each intervention. Discussion focuses on implications for instructional approaches to reading and directions for future research.

**A Qualitative Study of Burnout among Child Welfare Workers**

By: Kimberly Wilson

Social Work

Faculty Jim Raines

**A Qualitative Study of Burnout among Child Welfare Workers**

By: Kimberly Wilson

Social Work

Faculty Jim Raines

The purpose of this study sought to answer the research question, "What helps to prevent burnout in child welfare workers?" The study explored the causes and characteristics of burnout, preventive factors associated with burnout, and implications for the child welfare field. An open-ended questionnaire was administered to this sample of 22 child welfare workers. All questionnaires were turned in anonymously and the facilitator did not view the original surveys. Common themes were coded and organized according to similar responses. Based upon the research findings, implications will be discussed for social work practice.

**Fear, Dangerousness, and Mental Illness Stigma**

By: Tom Woodrick

Psychology

Faculty Glenn Reeder

Certain individuals in our society are stigmatized because of their membership in particular out-groups. This study investigates the stereotype that persons with mental illnesses are perceived as being aggressive. Prior research indicates that the amount of time participants are allowed for indicating their perceptions is important. Therefore, the current study investigates the perception of the mentally ill under different time constraints. Results indicate that emotions of fear and dangerousness are rated higher when participants are given five seconds rather than twenty seconds to answer questions concerning the perceived violence or aggression of a mentally ill individual. The findings of this study and considerations for future research are discussed.

### **Questioning a Change in Sexual Identity: A Study of Patriarchal Motivations of Change in the Sexual Identity of Women within Alternative Lifestyles**

By: Jennifer Woodruff

Sociology and Anthropology

Faculty Tom Gerschick, Maria Schmeeckle, Joan Brehm, Marion Willetts

My research herein reports the complications associated with bisexual orientation identity among women within the “alternative lifestyle and swinging” communities, and performs an intensive literature review of the bisexuality identity of women. The basis of this study proposes the following research questions: What motivations do women have in choosing or changing their sexual identity? To what extent do women change their identity? What causes women who identify as heterosexual to change their sexual identity to bisexual? Are there patriarchal motivations from significant others which compel women to participate in bisexual/gay sexual behaviors? What range of sexual behaviors do women participate in within this subculture?

The comprehensive literature review will be divided into the following subsections. Using interview and internet data, information will be collected to support or detract from my underlying hypotheses and research questions. This qualitative data will be used to collect both a descriptive analysis of alternative lifestyle communities to provide a better understanding of the people I am researching, as well as provide specific information required to help answer my research questions.

The field research and thesis have not been completed at the time of this presentation. My presentation will pertain to my literature review, previous research and statistical information already collected. The data presented will focus on the alternative lifestyle/swinging subculture. I will also do an overview on current issues with bisexuality.

### **Synthesis of Novel Porphyrin Analogues from Resorcinol and 2-methylresorcinol**

By: Linlin Xu

Chemistry

Faculty Timothy Lash

Resorcinol and 2-methylresorcinol react with acetoxyethylpyrroles in the presence of p-toluenesulfonic acid and calcium chloride to give tripyrrane-type intermediates. These can be further deprotected and condensed with a pyrrole dialdehyde to afford oxybenzoporphyrins. The porphyrinoid derived from 2-methylresorcinol can be further oxidized with [bis(trifluoroacetoxy)iodo]benzene to give dicarbonylcarbaporphyrinoids. Similar macrocycles can be prepared from 2,5-furandicarbaldehyde and thiophenedicarbaldehyde. The chemistry of these novel compounds, including metalations and N-alkylation