

Graduate & Professional Student Research Forum

Saturday, March 17, 2012

University of Nevada, Las Vegas



*The Graduate & Professional Student
Research Forum is co-hosted by the
Graduate & Professional Student Association
and the Graduate College.*

*We'd like to thank the faculty judges and student volunteers. Without
your support this event would not be possible.*

*The GPSA and Graduate College would like to acknowledge Nevada INBRE and
Dr. Carl Reiber, INBRE Program Coordinator,
for the use of their partitions.*



2012 Graduate & Professional Student Research Forum Schedule of Events

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2012 Graduate & Professional Student Research Forum Schedule of Events

Poster Sessions

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Graduate & Professional Student Research Forum
Science and Engineering
Platform Session A
UNLV Student Union Room 208A

9:30 – 9:45am	Priyatham Gorjala and Ata ur Rahman Mohammed Abdul, Department of Chemistry
9:45 – 10:00am	Tae Soo Jo, Department of Chemistry
10:00 – 10:15am	Kathryn M. Lantz, School of Life Sciences
<i>10:15 – 10:45am Break</i>	
10:45 – 11:00am	Srikanth Madada, Department of Mechanical Engineering
11:00 – 11:15am	Pankaj Maheshwari, Department of Civil and Environmental Engineering
11:15 – 11:30am	Erica Marti, Department of Civil and Environmental Engineering

Elucidating the Effect of Ionizing Radiation on Young and Senescent Cells Using Beryllium as a Senescence Inducing Agent

Priyatham Gorjala, Ataur-Rahman Mohammed Abdul and Ronald K. Gary, Department of Chemistry

Exposure to harmful radiation like cosmic rays is cause of concern to people travelling at higher altitudes specially astronauts. The primary effect of exposure to ionizing radiation is the damage to the macromolecules like DNA, RNA etc. An array of secondary effects is also observed at the molecular and cellular level. Actively dividing cells are very sensitive to radiation exposure and the effect of radiation on actively dividing cells has been documented well conversely non-proliferating cells haven't been studied much. Analyzing the expression pattern of the non-proliferating cells under the influence of radiation can help in elucidating any differential response of non-proliferating from the proliferating cells. The results of the comparative study between proliferating and non-proliferating cells can help in determining if age can play a role in choosing old or young astronauts for certain missions. Microarray analysis of young proliferating cells and non-proliferating cells under the influence of X-rays (ionizing radiation) can effectively determine the differential response of the cells under consideration. Young human fibroblasts (HFL-1) and old senescent HFL-1 were used for the study. To eliminate any ambiguity between the expression patterns of the cells being used due to the age factor young senescent cells were obtained by treating them with 10 μ M Beryllium. The parallel comparison of the expression patterns of young proliferating, old senescent cells and young senescent cells shows up regulation of genes like p21, BTG2 and GDF 15 which are cell cycle arrest markers.

Dispersion of Single-Walled Carbon Nanotubes with Poly(pyridinium salt)s Containing Various Rigid Aromatic Moieties

Tae Soo Jo, Jungjae Koh, Haesook Han and Pradip K. Bhowmik, Department of Chemistry

A new method for the dispersion of SWNTs using poly(pyridinium salt)s was demonstrated via non-covalent interactions (coagulation method) in dimethyl sulfoxide. The effect of poly(pyridinium salt)s having different conjugation length to disperse SWNTs was studied by several experimental techniques. The interactions between SWNTs and ionic polymers were revealed by ^1H NMR and photoluminescence spectra. By increasing the weight percentages of SWNTs in the composites, there occurred a strong quenching of light-emission of the ionic polymers. Furthermore, the transmission electron microscopy study displayed that SWNTs were wrapped by ionic polymer chains with thickness around 3–4 nm. The lyotropic LC phases of ionic polymers were disrupted with the increase in weight percentages of SWNTs.

DHR96: The Search for an Alternate Receptor

Kathryn M. Lantz and Andrew Andres, School of Life Sciences

Proper steroid hormone signaling is essential for the development of all multicellular animals including humans. At the molecular level, the steroid hormone binds to receptor proteins and changes the pattern of gene expression in a tissue-specific fashion. A fundamental question of cell biology concerns how a generalized developmental signal is fine-tuned during these specific responses. My work focuses on using the genetic model system, *Drosophila melanogaster*. In these flies one single steroid, 20-hydroxyecdysone, triggers multiple developmental events. Furthermore, one target tissue, the larval salivary gland, responds to different developmental pulses of the hormone in varied physiological ways. We now have preliminary data that this occurs by switching one of the receptor protein partners. Using an approach that includes the sequencing of all the RNAs from these tissues, together with loss-of-function and gain-of-function genetics, we have now focused on that specific receptor molecule.

Comparison and Economic Analysis of PV Technologies for Utility Scale Installations

Srikanth Madala, Jonathan D. Realmuto, Suresh B. Sadineni and Robert F. Boehm,
Department of Mechanical Engineering

The photovoltaic (PV) industry has seen remarkable progress in recent years, especially considering the advancement in materials and cell architecture. The potential of these technologies is investigated in a high insolation region of Southwestern United States, namely Las Vegas, where there is an abundance of surrounding barren land available for large scale installations. An experimental comparison of different PV technologies (HIT-Si, poly-c-Si, a-Si, and triple junction a-Si) under identical climatic conditions is the basis of this study. All tested modules have identical operating conditions, i.e. fixed installation plane, geographic location, and climatic conditions. The experiment verifies thin-film's temperature independency, HIT-Si's superior performance, and summarizes winter energy production of popular technologies in our climate. Lastly, an economic analysis is performed to compare the different technologies for prospective utility scale PV installations in southern Nevada, or similar climatic regions.

Estimation of Performance Indices for the Planning of Sustainable Transportation Systems

Pankaj Maheshwari, Alexander Paz and Pushkin Kachroo, Department of Civil and Environmental Engineering

In the context of sustainability, this study defines three important and interdependent systems, the Transportation, Activity, and Environmental Systems. Previous studies have focused primarily on a particular system, such as the transportation sector. This study explicitly considers the Transportation, Activity, and Environmental Systems as well as their interdependencies. Hence, a system of systems approach is adopted in this study to illustrate the historical trends of these three systems. The performance indices for each system are combined to obtain a composite sustainability index. Considering the complexities and the vagueness associated with some of the performance measures, a fuzzy logic modeling approach was chosen to develop the desired indices. Existing data was used to estimate performance indices for these systems for the entire United States. The results showed that the Transportation System and the Activity System follow a positive trend, with similar periods of growth and contractions; on the other hand, the environmental system follows a reverse pattern. The results are intuitive, and are validated through a series of historic events, such as depressions in the economy as well as policy changes and regulations. Previous planning and operational policies for the Transportation, Activity, and Environmental systems can be evaluated from a holistic perspective based on the revealed performance trends.

Impact of Sludge Handling Processes on Estrogen Concentration in Wastewater Sludge

Erica Marti, Department of Civil and Environmental Engineering

Estrogens from anthropogenic sources are known to be present in the aquatic environment at concentrations that disrupt the endocrine system. Without removal, endocrine-disrupting compounds cause reproductive and developmental problems in fish and wildlife. Wastewater treatment plants are major contributors of estrogens into the environment via effluent discharge and sludge disposal. Though estrogens in wastewater discharge have received significant attention, estrogens in sludge have not. Biosolids (i.e. sludge applied to land) may be used as fertilizer and can become another source of estrogens in the environment. Biosolids may be treated prior to use as fertilizer or disposal to a landfill; however, the impact of various sludge handling processes is not well understood. In this study, sludge samples representing various treatment processes from two wastewater treatment plants were extracted and analyzed for three natural estrogens (estrone, estriol, estradiol) using an enzyme-linked immunosorbent assay (ELISA). The presence of estrogens in biosolids at these wastewater treatment plants was confirmed and all sludge samples contained estrogens. Concentrations were greater for digested sludge than non-digested sludge. Sludge handling processes do show variation for estrogen concentration in biosolids, although extraction efficiency and desorption may be other factors affecting concentration.

Graduate & Professional Student Research Forum
Science and Engineering
Platform Session B
UNLV Student Union Room 208B

9:30 – 9:45am	Mohammad Saadeh, Department of Mechanical Engineering
9:45 – 10:00am	Swapn Kumar Sahoo, Department of Geoscience
10:00 – 10:15am	Kishor Shrestha, Department of Civil and Environmental Engineering

10:15 – 10:45am Break

10:45 – 11:00am	Van Vo, Department of Chemistry
11:00 – 11:15am	Michael Webber, School of Life Sciences
11:15 – 11:30am	Sarah Wood, Department of Chemistry
11:30 – 11:45am	Liyuan Zhang, School of Life Sciences

Identification of a Force Sensing Resistor for Tactile Applications

Mohammad Saadeh and Mohamed Trabia, Department of Mechanical Engineering

A Force Sensing Resistor (FSR) is a conductive polymer that exhibits a decrease in resistance as the force applied at its surface increases. The aim of this work is to identify the characteristics of the FSR for use in a refreshable and portable E-Braille device that can assist the Blind and Visually Impaired (BVI) persons. The FSR is placed within a component dynamic testing device that is composed of a linear actuator that can generate different displacement loading profiles and a load cell that measures the applied forces. The system records the voltage, force, and the displacement profiles. Several strategies are used in the identification process.

First, the mechanical properties of the FSR are experimentally characterized. A second-order mechanical system whose parameters are function of the exciting frequency is created based on the results of this experiment. The performance of this model is evaluated using several test inputs. In an attempt to better identify the FSR, alternative higher order linear and nonlinear models, including Hammerstein, Wiener, and Hammerstein-Wiener, are proposed using system identification techniques. The accuracy and robustness of these models are assessed using various loading profiles. The outputs of these models are compared with the experimental results.

An Oxygen Window for Animal Evolution in the Wake of the Late Cryogenian (Marinoan) Glaciation

Swapn Kumar Sahoo, Noah J. Planavsky, Brian Kendall, Xinqiang Wang, Xiaoying Shi, Ariel D. Anbar, Timothy W. Lyons and Ganqing Jiang, Department of Geoscience

Metazoans first appeared in the fossil record shortly after the termination of the late Cryogenian (Marinoan) glaciation about 635 million years ago (Ma). It has been long hypothesized that an oxygenation event was the driving factor behind the rise and early diversification of metazoans, but there is little evidence for a direct link between animal and redox evolution. As such, models linking trends in biological evolution to shifts in Earth system processes remain controversial. Here we report new geochemical data from early Ediacaran organic-rich black shales of the basal Doushantuo Formation in South China. High enrichments of molybdenum and vanadium in these shales record expansion of the oceanic inventory of redox-sensitive metals in a well-oxygenated ocean. The data provide the first direct evidence for a significant postglacial oxygenation event, much earlier than those suggested by others, and hence support a casual link between the most severe glaciations in Earth's history, the oxygenation of the Earth's surface, and the earliest emergence of complex animals.

Construction Safety Visualization

Kishor Shrestha, Pramen Shrestha and Evangelos Yfantis, Department of Civil and Environmental Engineering

Throughout the history of the construction industry, many fatalities and injuries have occurred in construction sites. One of the major causes of accidents is unsafe site conditions, which basically is due to inadequate supervision by standing a person in the site. To improve upon the traditional supervision approach, this study proposes a construction safety visualization approach. In this research paper, we provide a computer vision algorithm to detect in real time if any safety violations occur caused by one or more people in the site not wearing their hard hats. Our algorithm is an extension of our previous work in computer vision, and consists of a detection algorithm that is relatively fast and yet has an accurate edge. This is followed by a video object plane algorithm for each person and sub-video object plane to recognize hard hat, which is followed by an algorithm for detecting if a person does or does not wear a hard hat on his head. Once the algorithm identifies a worker working without hard hat, it automatically dispatches a warning message to the safety officer. Ultimately, the site supervisor that is responsible will be informed so that the safety problem is corrected prior to an accident occurring.

Cytotoxic Effects of Novel Cisplatin Analogues in Human A549 Lung Cancer Cells
Van Vo, Ontida Tanthmanatham, Haesook Han, Pradip K. Bhowmik and Bryan L. Spangelo, Department of Chemistry

Cis-diamminedichloroplatinum (II) (cisplatin or CDDP) was approved by the US Food and Drug Administration (FDA) in 1978 and is now one of the most commonly prescribed chemotherapeutic agents for the treatment of various cancers such as testicular, ovarian, bladder, head and neck, and lung. While quite effective and widely used, clinical use of cisplatin is limited because of toxic side effects and drug resistance. These limitations have prompted the search for compounds superior to cisplatin resulting in numerous cisplatin analogues.

In the hope of discovering a suitable replacement for cisplatin, a series of cisplatin analogues of the formula (4,4'-bis[RO]-2,2'-bipyridine)PtCl₂ [where R = (CH₃)₂₋₈] were synthesized. The cytotoxic effect of one of the analogues, (4,4'-dibutoxy-2,2'-bipyridine)PtCl₂, will be presented. Because lung cancer is one of the most common cancers in the world and is the leading cause of cancer death in US men and women the antitumor activity of this compound was examined in a human lung cancer cell line (A549) using the MTS cell proliferation assay. For a one hour treatment the analogue had an EC₅₀ = 17 ± 1 μM whereas cisplatin was ineffective to concentrations as high as 1 mM. Fluorescence microscopy and flow cytometry data indicate the main mode of cell death is through apoptosis with minor necrotic responses. Data will be presented to demonstrate a preliminary determination of the involvement of survival and death signaling proteins (p53 and MAPKs). The results demonstrate the potential utilization of this compound in platinum (II)-based treatment strategies.

The Effect of Reproductive Status on Thermal Preferences of Female Arizona Bark Scorpions (*Centruroides sculpturatus*)

Michael M. Webber and Javier A. Rodriguez-Robles, School of Life Sciences

Under resource limitation, organisms must compromise and divide time and energy among essential activities (e.g. body maintenance, feeding, and reproduction). Those compromises are referred to as life history tradeoffs. A prominent question in the study of life history tradeoffs involves resource allocation between reproduction and an organism's survival. Females often experience high reproductive costs during pregnancy, which are known to elicit changes in the thermoregulatory patterns of females. Previous studies on thermoregulation in reproductive females (e.g. lizards, snakes) indicated that they often spend more time engaged in thermoregulatory activities and exhibit higher and less variable body temperatures than non-pregnant females. However, this phenomenon is not well documented in invertebrates. I tested the effect of reproductive status on the thermoregulatory behavior of female Arizona Bark Scorpions (*Centruroides sculpturatus*). Preferred body temperatures for thirty, (15 pregnant and 15 non-reproductive), female *C. sculpturatus* was measured within a thermal gradient, and recorded over a 24-hour period. Our data demonstrate that pregnant female *C. sculpturatus* indeed select higher body temperatures than non-reproductive females. The selection of higher body temperatures by pregnant female scorpions may improve embryonic development and might shorten the length of pregnancy, thus minimizing the time invested in a reproductive bout. However, exposure to increased temperatures might increase rates of water loss for reproductive females. In arid environments, this may compromise the survival of females. By understanding the effects of reproduction on the behaviors of females, it is possible to identify factors that influence their reproductive strategies and survival in nature.

Researchers' Perceptions of Self-Assembly: Reactions to Visual Representations of Self-Assembly

Sarah Wood, Thomas Bussey, Megan Litster, MaryKay Orgill, Kent Crippen, Wendy Ho and Cindy Kern, Department of Chemistry

There are a variety of processes that have been identified in the literature as being examples of self-assembly (Pelesko, 2007). What makes these processes examples of self-assembly? Are there certain characteristics that distinguish these examples from other non-self-assembly processes? Are some characteristics more important than others? In order to identify the distinguishing characteristics of self-assembly, we analyzed researchers' responses to visual representations of published examples of self-assembly. These researchers were asked to 1.) determine whether they believed each process was representative of self-assembly and 2.) provide an explanation/rationale for their answer. In this presentation, we will discuss the primary and secondary characteristics of self-assembly that emerged from the data.

The Role of Two Rice WRKY Genes in Regulating Plant Response to Drought Stress

Liyuan Zhang, Lingkun Gu and Jeffery Qinxi Shen, School of Life Sciences

Rice is the primary source of food for a large part of the world's population. However, global climate change has increased drought stress, leading to decreased rice production. Therefore, developing rice with enhanced tolerance to drought will strengthen the sustainability of global agriculture and meet the demands of the growing human population. In this project, two drought-inducible WRKY transcription factors have been identified which may function as the main switches to turn on or off gene expression involved in regulating rice response to drought stress. The expression levels of these two WRKY genes are manipulated by using rice transformation. First, the formation of calli (stem cells) is induced in a media containing a synthetic auxin. Calli are then co-cultured with *Agrobacterium tumefaciens* containing overexpression constructs of the two WRKY genes. Finally, transgenic plantlets are regenerated in a media containing auxin and cytokinin. The expression levels of the two WRKY genes are higher in the overexpression lines than in the wildtype. Future work is needed to evaluate whether the transgenic plants are more tolerant to drought stress or not. Overall, this project will not only increase our understanding of drought responses in crop plants but also lead to new approaches aimed at reducing global crop loss caused by drought stress.

Graduate & Professional Student Research Forum
Social Science
Platform Session A
UNLV Student Union Room 208C

9:00 – 9:15am Cheryl Anderson, Department of Anthropology

9:15 – 9:30am Ian Baldwin, Department of History

9:30 – 9:45am Kathryn Baustian, Department of Anthropology

9:45 – 10:00am Nicole Bies-Hernandez, Department of Psychology

10:00 – 10:30am Break

10:30 – 10:45am Aaron Bobik, Department of Anthropology

10:45 – 11:00am Monica Bolton, Department of Psychology

11:00 – 11:15am Justin DeMaio, Department of Anthropology

11:15 – 11:30am Michelle Escasa-Dorne, Department of
Anthropology

11:30 – 11:45am Ted Greenlaugh, School of Environmental and
Public Affairs

Identifying Victims of Violence in a Multicultural Context: A Bioarchaeological Case Study from Northern Mexico

Cheryl Anderson, Department of Anthropology

San Francisco de Borja is a mortuary cave site in Chihuahua, Mexico excavated by Richard and Sheilagh Brooks. Dating to the late prehistoric period, a minimum of seventeen individuals were interred in this burial cave and are thought to belong to the Tarahumara cultural group. Of these, several individuals exhibited signs of perimortem trauma. In order to investigate these indications of violence and place the remains in the larger social and political landscape, archaeological data on the Tarahumara and other groups in the region was examined. This included information on multicultural interactions between the Tarahumara, other local cultures, and groups passing through the region, which was a major trade corridor.

Analyses indicate that a minimum of 10 adults and 7 subadults were interred at this site. Evidence for perimortem chop marks was found on one adult male, who exhibited at least three wounds. Additionally, perimortem neck fractures were discovered on two individuals. The wounds on these three individuals are consistent with interpersonal violence. Due to the combination of multiple types of evidence, it is suggested that at least some people at this site were victims of either conflict between individuals from different cultural groups or violence among the Tarahumara.

"A Boy's Best Friend is his Mother:" Momism in Alfred Hitchcock's "Psycho"
Ian Baldwin, Department of History

In 1960, Alfred Hitchcock's *Psycho* was released in the United States and instantly became one of the most popular horror films of the postwar era. As a staple of American film history and popular culture, the film also conveyed important domestic Cold War ideologies and anxieties, both of which contributed to its success with postwar American audiences. While the film has often been overlooked by historians of Cold War America, its reliance on numerous Cold War beliefs, namely that of Momism, make it a fascinating example of gender politics and ideological development in the United States during the Cold War period. The main argument of this paper is that *Psycho* validated and strengthened the concept of Momism, which was formulated in the early 1940s and 1950s by men such as Philip Wylie and Edward Strecker.

Battered and Abused: Analysis of Increased Violence at a Large, Multi-Ethnic Mogollon Site

Kathryn M. Baustian, Ryan P. Harrod, Anna J. Osterholtz and Debra L. Martin,
Department of Anthropology

Increasing violence and inter-group conflict in the northern Southwest is prevalent into the 13th and 14th centuries AD. In the northern Mogollon region, the population at Grasshopper Pueblo experienced an increase in non-lethal trauma among the population as a whole; however the increase in trauma among women is particularly noteworthy. The skeletal remains of 187 individuals from the site were analyzed for non-lethal trauma. All age groups across both sexes show at least some non-lethal trauma with younger individuals showing the highest frequencies. Approximately one third (n=61) of the population had healed cranial depression fractures. Females and males were fairly equal in terms of proportion of their respective sex having these injuries; however there were more injured females than injured males. Considering theories of multi-group (or multi-ethnic) cohabitation at this site, could the mix of different culture groups have exposed the population, or portions of the population, to more violence from other groups during this increasingly turbulent time period? This presentation will demonstrate patterns in the infliction of non-lethal trauma among the population and suggest the ways that violence is used within the society.

Examining the ERP Correlates of Recognition Memory Using a Testing Effect Paradigm

Nicole J. Bies-Hernandez, Joel S. Snyder and David E. Copeland, Department of Psychology

Recognition memory judgments can be made on the retrieval of aspects of a study event (i.e., recollection), or based on a feeling of knowing, but without retrieval of specific information (i.e., familiarity). Event-related potential (ERP) studies have identified two correlates of accurate recognition judgments, the parietal and mid-frontal old/new effects (i.e., ERPs elicited by correctly classified old/studied items are more positive-going than those elicited by correctly classified new/unstudied test items), which correspond to recollection and familiarity, respectively (Rugg & Curran, 2007). However, these correlates have not been examined using a testing effect paradigm. The testing effect refers to the finding that testing can lead to greater long-term retention of information than simply restudying (Roediger & Karpicke, 2006). This study investigated whether the ERP correlates of familiarity and recollection could be observed using a testing effect paradigm, and whether there would be a difference in the presence or size of the ERP correlates for practice testing compared to restudying. This was investigated using a standard testing effect paradigm consisting of: (1) encoding, (2) practice (i.e., testing or restudying), and (3) a delayed final test. Performance was significantly higher with testing than restudying (i.e., the testing effect). The preliminary ERP results showed a mid-frontal old/new effect (neural signature of familiarity) for the testing group but not the restudy group, while both groups demonstrated a parietal old/new effect (neural signature of recollection). This study provides initial evidence that the ERP correlates of recollection and familiarity can be examined using a testing effect paradigm.

Rethinking the Collapse: Zooarchaeology and the Late Bronze to Early Iron Age Transition in Central Anatolia

Aaron Bobik and Levent Atici, Department of Anthropology

Iron Age marks the collapse of the Hittite Empire in Anatolia around 1200 BCE and signifies the onset of a Dark Age. Discontinuity and disruption in social, political, and economic systems and institutions in the Iron Age Anatolia are conspicuously evident in the archaeological and textual records. This paper seeks to answer whether we can identify continuity and disruption in the zooarchaeological record. We investigate animal exploitation patterns of the preceding Middle and Late Bronze ages in Central Anatolia developing a centralized and regulated economic model and discuss continuity and disruption in animal exploitation patterns within this theoretical framework.

Comparison of an Adult and Developmental Animal Model of Schizophrenia

Monica Bolton, Chelcie Heaney, Jonathan Sabbagh, Andrew Murtishaw and Jefferson Kinney, Department of Psychology

Schizophrenia is a brain disorder that affects about 1% of the world population and leaves individuals unable to live independently. In order to effectively treat this disorder, the underlying cellular mechanisms need to be elucidated. The glutamate hypothesis of schizophrenia states that there is altered glutamate signaling in the brain via the hypofunction of NMDA receptors. Our laboratory has previously established a rodent model of schizophrenia by administering a drug and dose that block these receptors and result in behavioral deficits in tasks such as spatial learning and memory and sensorimotor gating that are also seen in schizophrenic patients. However, these deficits are only apparent while the drug is physiologically active in the animal's system. Schizophrenia is also theorized to be a neurodevelopmental disorder in that there is some alteration in early brain development that does not produce behavioral symptoms until adulthood. To investigate if disrupting the function of NMDA receptors during early brain development would result in behavioral deficits in adulthood, we administered the same drug and dose that target NMDA receptors to postnatal rats during critical brain developmental periods and tested them months later once they reached adulthood. These animals produced behavioral deficits similar to our previously established adult drug administered animal model of schizophrenia offering a more accurate model of the disease state and evidence towards the neurodevelopmental theory of schizophrenia.

Investigating Changing Prehistoric Landscape Use on the Nevada National Security Site

Justin DeMaio, Department of Anthropology

The Nevada National Security Site is a vast area of land in the southern Great Basin which has evidence of human occupation stretching back to the first inhabitants of North America. Differential landscape use was a key adaptation to living in this environment throughout the Holocene and previous archaeological research has identified the zones that were attractive to these prehistoric populations. However, neither the climate nor the people were stagnant throughout this long period. This investigation utilizes GIS techniques along with current landscape perspectives to understand how these adaptations changed not only across space but also through time.

Sociosexuality, Mate Preferences, and Sex Steroid Hormones of Breastfeeding Women in Manila

Michelle Escasa-Dorne, Department of Anthropology

This project investigates the influence of lactation on female sociosexuality and mate preferences in urban Manila. From an evolutionary perspective, female ancestors were likely spending more time pregnant and lactating rather than ovulating. Moreover, a majority of conceptions in natural fertility societies occurred in lactating, ovulating women. These considerations suggest that lactating women face important life history allocation trade-offs between mating and parenting effort that may be manifest in their sociosexual behavior and mate preferences. However, the effects of lactational phases on female sociosexuality and mate preferences have been less well studied than among regularly cycling women. The proposed study hypothesizes that lactating, non-cycling women (n=75) will have the lowest libido, sexual behaviors, preferences for masculine traits, and sex steroid hormones (testosterone and estrogen); Lactating cycling women (n=75) will have intermediate measures of these outcomes; and regularly cycling women (n=75) will have the highest libido, sexual behaviors, preferences for masculinity, and hormone levels. Participants were recruited from a government hospital and lactation centers in Manila, a population with long-term breastfeeding, low contraceptive use, and quick return to cycling. Methods include Likert-scale questionnaires, open-ended questions, participant observation, a face-preference task and saliva collection. This study benefits from an empirically-based quantification of women's negotiations between mating and parenting efforts, and culturally-relevant information regarding maternal health, long-term breastfeeding, and family planning. Data are under analysis and will be discussed during the presentation.

A Combined Theories Approach to Climate Change Communication

Ted Greenlaugh, School of Environmental and Public Affairs

This research examines the complexities of communicating climate change risk information and the underlying individual attitudes and message content that can affect message reception. Using climate change messages incorporating fear appeals and normative information the subject's reactions to the messages were evaluated using the Theory of Planned Behavior model. The study found that fear appeals did increase behavioral intention to adopt a lower carbon lifestyle among test group subjects. The Theory of Planned Behavior model showed that attitudes and self-efficacy were significant predictors of the behavioral intent to adopt a lower carbon lifestyle, while community norms were only marginally predictive. However, not all attitude measures were predictive, while the personal injunctive community norms measure was. The study also found that pre-existing attitudes towards the environment and conservatism were also good predictors of intent to change behavior. This study suggests that fear appeals can be an effective means of communicating climate change to motivate behavioral change. The study also suggests that the combined approach used in this study allows researchers to understand the interplay of worldviews, news information, and individual attitudes about changing behavior that play an integral part of how the public comes to terms when dealing with complex issues.

Graduate & Professional Student Research Forum
Social and Health Sciences
Platform Session B
UNLV Student Union Room 205

9:00 – 9:15am	Kris Gunawan, Department of Psychology
9:15 – 9:30am	Krystal Hammond, Department of Anthropology
9:30 – 9:45am	Ryan Harrod, Department of Anthropology
9:45 – 10:00am	Chelcie Heaney, Department of Psychology
10:00 – 10:15am	Emily Hensleigh, Department of Psychology
<i>10:15 – 10:45am Break</i>	
10:45 – 11:00am	Katherine Klumppan, Department of Environmental and Occupational Health
11:00 – 11:15am	Ellen MacDonald, Department of Anthropology
11:15 – 11:30am	Anna Osterholtz, Department of Anthropology
11:30 – 11:45am	Kerri Schafer, Department of Psychology
11:45am – noon	Shiori Yamamoto, Department of History

The Event Indexing Model in Sequential Art

Kris Gunawan and David E. Copeland, Department of Psychology

People form mental representations of the described state of affairs known as situation models when reading through stories (Zwaan & Radvansky, 1998). As they construct these mental representations, people simultaneously monitor various situational changes, such as locations, time, characters, and objects. This finding is known as the Event Indexing Model (Zwaan, Magliano, and Graesser, 1995). However, previous studies have mainly focused on text narratives, and further research is needed to apply the Event Indexing Model to other domains. One of these domains is sequential art, commonly referred to as comic books that involve juxtaposed illustrations presented in a deliberate sequential manner (McCloud, 1993). These illustrated narratives are unique because they rely on the combination of texts (e.g., dialogues) and pictures to create a complete story. In this study, college students were presented with comic books in either a natural format (printed on paper) or on a computer. They were instructed to either (1) identify whether there were situational changes for each panel, or (2) read the comic books and answer comprehension questions. Judgment responses (i.e., identifying the situational changes) and response times were assessed. The results supported the Event Indexing Model, demonstrating that people monitored changes to locations, time, characters, and objects. In addition, when situational changes occurred, people slowed down in their response times to integrate new information with their prior knowledge. However, consistent with the rapid spatial updating view (Radvansky & Copeland, 2010), evidence of processing changes in location was only present for judgments but not response times.

Child Burials as Indicators of Resource Allocation and Status Change in Prehistoric Thailand

Krystal Hammond, Jennifer Thomson and Debra Martin, Department of Anthropology

The inclusion of grave goods within ancient burials is often associated with a group's religious beliefs. However, certain economic information can also be gleaned from detailed analysis of grave offerings. For example, interment of food, pottery, and other items such as tools or jewelry can reveal clues about the resources available to ancient populations. The distribution of these resources within burials may also speak to a society's notion of status and class. Of particular interest is the interment of grave offerings in non-adult burials as this may reflect society's attitudes toward children. This paper will discuss data from approximately sixty adult burials and thirty juvenile burials excavated at Non Nok Tha, Thailand (c. 3000-200 BC), and will focus on the distribution of grave goods across age groups and over time as the population becomes more dependent on rice agriculture. Evidence suggests that this economic shift resulted in a subtle change in burial practices for all individuals at this site, including children. These results add to our understanding of children's changing social roles in prehistory.

Centers of Control: Revealing the Elites at Chaco Canyon

Ryan Harrod, Department of Anthropology

This project explores the role of violence as a mechanism of social control among elites by using data derived from the burials and the burial context. Pueblo Bonito presents a compelling case because at least one of the elites in the burial room was bludgeoned to death. Elite or high status burials, while relatively rare in the archaeological record, are of interest because of the role the individuals are assumed to have played in the culture. There are two individuals in Pueblo Bonito's Room 33 at Chaco Canyon (AD 900-1150) that may represent an example of elites in the American Southwest. Many scholars have noted the vast number and elaborate nature of associated grave goods, as well as indications of better health and nutrition (e.g., they are taller and more robust than age-matched contemporaries and elevated nitrogen isotope levels indicative of high protein diets). Comparing and contrasting this site with several other elite burial contexts (e.g., the Magician's Burial at Ridge Ruin, Mound 72 at Cahokia, La Real in Peru, and Solcor in Chile) provides a cross-cultural description that highlights the ways that violence, mortuary treatment, and sociopolitical status can be explored.

An Investigation of the Effects of Alterations in GABAB Receptor Function on Learning and Memory

Chelcie Heaney, Department of Psychology

The investigation of learning and memory has included extensive examination of excitatory transmitter systems, however there are substantially less data regarding the principally inhibitory systems. Inhibitory signaling via GABAergic mechanisms has been found to be necessary in several forms of behavior, and has been implicated in a number of disorders. For learning and memory, the literature predominately focuses on the ionotropic GABAA receptor and the data typically indicate that GABAA antagonists facilitate and GABAA agonists impair learning and memory. The role of the metabotropic GABAB receptor in learning and memory has not been as well characterized. Data indicating that the GABAB receptor is involved in mediating overall network function and some aspects of local circuit function suggest GABAB may provide an important contribution to learning and memory processes. Further, a better understanding of GABAB function may provide more insight into how GABAergic dysfunction may relate to several disorders. In order to evaluate GABAB receptors in learning and memory, we investigated if changes in GABAB receptor function alter performance in a learning and memory task. Specifically, we examined performance in a Pavlovian classical conditioning task following administration of several GABAB receptor ligands. The data indicate that altering GABAB function does, in fact, affect learning and memory in this task. Further, our data indicate that the greatest deficits were produced in learning that requires the interaction of several neurological regions. The implications of our findings suggest that GABAB receptor function is an important part of certain learning and memory processes.

Two Week Postnatal Separation Alters METH Induced Locomotor Activity in a Dose and Sex Dependent Manner

Emily Hensleigh, Sarah Lynch, Kelly AbuAli and Laurel M. Pritchard, Department of Psychology

Clinical evidence suggests an association between early life stressors and likelihood of substance abuse in late adolescence. Maternal separation (MS) of neonatal rat pups models the effects of these early life stressors. The current study examined the effects of maternal separation on methamphetamine (METH)-induced locomotor activity. Five mixed sex litters were isolated for three hours per day on postnatal days (PND) 2-14. Control litters were briefly handled each day during this period. During late adolescence (PND 42) rats were given one of three possible injections: low METH (1.0mg/kg), medium METH (3.0 mg/kg), or saline, and observed for stereotyped behaviors and locomotor activity. Results indicated a significant sex x dose x condition interaction. MS males exhibited higher activity in response to the low and medium dose of METH compared to control males. MS females exhibited increased activity to a low dose of METH compared to control females. MS females exhibited lower activity and higher stereotypy scores for the medium dose compared to control females, suggesting an increased sensitivity to the locomotor activating effects of methamphetamine. The current findings suggest early maternal separation increases sensitivity to the locomotor activating effects of METH. These results imply early life stress may lead to permanent alterations in brain circuits which might increase susceptibility to METH.

Use of Projective Techniques to Determine a Participant-Centered Approach to Education in the Women, Infant and Children (WIC) Program

Katherine Klumpanyan, Department of Environmental and Occupational Health

Escalating rates of childhood overweight and obesity is a pressing public health concern. Research indicates that children from low-income families are more likely than other children to have serious health problems. The Women, Infants and Children (WIC) Program setting is the ideal environment for influencing positive behaviors among parents of young children. Traditionally WIC nutrition education provided to participants has been didactic in nature focusing solely on providing knowledge to the WIC participant. The methodological approach to this research is an ethnographic case study of WIC mothers in Las Vegas with children 2 to 5 years of age that are at or above the 85th percentile BMI, and English speaking. Projective techniques will be used in focus groups to explore how WIC Program mothers prefer to be approached by educators regarding their child's weight. The data gathered will provide the framework to create health messages, WIC educator tools and specific trainings for educators. By embracing a new WIC educator pedagogy of participant-centered education (PCE), WIC educators can be more successful with engaging WIC mothers about their child's weight to influence positive behaviors.

Chinks and the Chinese Exclusion Act: Ethnic Slurs and Social Processes
Ellen MacDonald, Department of Anthropology

In this paper, I examine the impact of social processes on linguistic constructions of exclusion through the use of the ethnic slur chink. I take a historical approach to understanding this slur, locating it within a range of macroprocesses from the Chinese Exclusion Act of 1882 through to today's conflicts and concerns over the economic downturn and immigration policies. In the United States, a country composed mainly of immigrants and their descendants, many immigrant groups have faced periods of time when they have been less than welcomed by the larger society. Those who are already established in the United States are often afraid that new immigrants will arrive, take away their jobs, and destroy their success. I examine the use of the racial slur "chink" in newspapers, blogs, and online forums to demonstrate the ways in which this term is used to create collusion and to engender exclusion that diverges and converges in important ways with other linguistic practices, like gossip and confession. As King and Clarke (2002) suggested, I examine chink as a "vehicle of social marginalization" and exclusion, yet I suggest that it is simultaneously a means to create collusion in the particular crannies of everyday life. Thus, this paper delves into the influence of historical macroprocesses to understand how the use ethnic slurs, such as chink, as well as other forms of name-calling can be understood as a means of both including and excluding people, even if the slur has been reclaimed (see Brontsema 2004 regarding queer).

Hobbling and Torture as Performative Violence

Anna Osterholtz, Department of Anthropology

Violent interactions have three distinct actors: aggressors, victims and witnesses. These groups are dynamic with changing roles at any given point during violent interaction and afterward, with archaeologists and other researchers examining the remains serving as the final witness class. Performative acts of violence do not lose their impact regardless of the time elapsed since the violent encounter. Social identities of individuals within these groups are created, changed and enforced through performative violence such as hobbling or torture. Using the assemblage from Sacred Ridge, a Pueblo I (A.D. 700-900) habitation site in Southwestern Colorado, the changing roles of these three groups are examined. Perimortem trauma and tool marks indicate heavy processing of all individuals; the remains were deposited completely commingled within a pit structure. Foot and ankle bones from the Sacred Ridge processed assemblage have damage suggesting hobbling by blows to the sides of the ankle and torture by beating the soles and tops of the feet. These performative acts form the basis for social control of victims and witnesses by aggressors. Through taphonomic analysis the behaviors that created the assemblage can be reconstructed; this reconstruction and reporting through presentations such as this one pushes anthropologists into the witness role.

Pant Size: Can the Number on the Label Impact Body Image, Self-Esteem, and Mood?

Kerri Schafer, Brooke Whisenhunt, Danae Hudson and Cortney Warren, Department of Psychology

The current study examined the influence of a pant size manipulation on body image, self-esteem, and mood among women with high or average trait-level body dissatisfaction. A total of 151 female undergraduates tried on pants that were labeled with their self-reported size but were actually either the same size as their self-reported size (Control Condition); two sizes smaller than their self-reported size (Size Smaller); or two sizes larger than their self-reported size (Size Larger). Women with higher levels of trait body dissatisfaction endorsed more negative outcomes than women with average trait body dissatisfaction. Women in the Size Smaller group endorsed more negative body image and appearance-based self-esteem than women in the other groups. No interaction between condition and level of body dissatisfaction was found, indicating that trying on pants that are expected to fit but are too tight is a salient, distressing experience for women with even average levels of body dissatisfaction.

Beginning to Be Citizens: Emerging Critiques of Marital Naturalization/Expatriation and Women's Political Consciousness in the 1910s
Shiori Yamamoto, Department of History

The history of U.S. immigration and naturalization laws shows that the United States has selectively granted admission to the country and/or citizenry depending on race, gender, national origin, occupation, or social status of the applicants. In the early twentieth century, marital status determined women's citizenship status. The Expatriation Act of 1907 stipulated that all American women who married foreigners had to take citizenship of their husband. In short, the Act made married women's citizenship dependent on that of their husbands.

Although the contemporaries did not view the Expatriation Act as problematic at the time of the passage, the practice of marital naturalization/expatriation caused enormous response in the early twentieth century. From 1912 to 1922, six bills were introduced to repeal the Expatriation Act. Among the six bills, this paper focuses on two bills and their committee hearings conducted in 1912 and 1917. Close analysis of the two Congressional hearings in the 1910s reveals the change in rhetoric and discourse utilized to abolish marital naturalization/expatriation. In the 1910s, social and political circumstances over citizenship changed drastically due to women's suffrage movement and WWI. Moreover, in 1915 the U.S. Supreme Court made the decision on the constitutionality of the Expatriation Act. Therefore, advocates of women's independent citizenship employed significantly different strategies to advance their cause during each hearing. I argue that the difference in rhetoric and discourse reflected not only the changes in the social and political environment, but also maturity and sophistication of women's political consciousness as independent, first-class citizens.

Graduate & Professional Student Research Forum
Social Science
Platform Session C
UNLV Student Union Room 207

9:00 – 9:15am	Brett Abarbanel, Department of Hotel Administration
9:15 – 9:30am	Monika Bertaki, Department of Communication Studies
9:30 – 9:45am	Adrienne Cass, Michael Folin and Chandler Pohl, School of Law
9:45 – 10:00am	Andrea Dassopoulos, Department of Sociology
<i>10:00 – 10:30am Break</i>	
10:30 – 10:45am	Lori Fazzino, Department of Sociology
10:45 – 11:00am	Candace Griffith, Department of Sociology
11:00 – 11:15am	Ramir Hernandez, School of Law
11:15 – 11:30am	Crystal Jackson, Department of Sociology
11:30 – 11:45am	Hyungseon Jeong, School of Law
11:45am – noon	Christopher Conner, Department of Sociology

Full Tilt Poker's Use of Social Media in the Wake of Industry Crisis

Brett Abarbanel, Department of Hotel Administration

On April 15, 2011, a day referred to by the poker community as Black Friday, Full Tilt Poker was one of three online poker sites targeted by the United States Attorney's Office in an unsealed indictment of eleven site executives for illegal gambling in violation of the Unlawful Internet Gambling Enforcement Act, money laundering, and bank fraud (H.R. 4954, 2006; Carter, 2011). Following the indictment, US players fell into a confused panic over the status of their accounts and their ability to continue playing real money poker online. Full Tilt used their social networks, including Twitter and Facebook, to communicate with players, answering questions as they came in. Perhaps most important to their business, these social networks were used to assuage fears of not just US players but those from other countries, too, who feared for their own legal play when the shutdown was enacted. This proposed study adopts a content analysis approach to examine how Full Tilt used social networks and web interfaces prior to, the day of, and in the aftermath of the indictments. Overall outlook on Black Friday and the manner in which Full Tilt responded to the community's predicament will generate more knowledge as to how Twitter, Facebook, and other social networking systems can foster communication between a service provider and its users.

RESEARCHER'S NOTE: This presentation was given prior to Full Tilt's loss of licensing from Alderney and France. The company is currently not operating and this research is pending.

Measured Communication Anxiety through Repeated Assignments

Monika Bertaki, Department of Communication Studies

The study examines students' anxiety levels in introductory public speaking courses. The research study is a longitudinal experimental design between the conditioned group (repeating the first speech of the course) and the control group (not repeating any speeches). Since previous research confirms that practice will aid in student's memory and confidence towards a speech, the study aims to examine if the repetition of a speech will significantly aid students' anxiety in comparison to students who deliver a new speech every time. Additionally, the study examines student's grades to assess if the grades are also impacted by the speech condition. Lastly, it provides great insight into future research for the study of education in the field of communication.

International and Comparative Human Rights Law Practicum - National Law University, Delhi - New Delhi, India - December 20, 2011 - January 6, 2012
Adrienne Cass, Michael Folin and Chandler Pohl, School of Law

The India International and Comparative Human Rights Law Practicum, co-sponsored by UNLV's William S. Boyd School of Law and the National Law University, Delhi, was a 20 day intensive educational and networking opportunity where US and Indian legal scholars join together to explore important issues in human rights law. The program allowed a select group of future American and Indian lawyers to network with each other and create lasting connections that have strengthen the legal relationship between two of the world's great democracies. 16 American law students, 6 from UNLV, participated, along with 10 students from various Indian legal institutions.

The program linked lectures and group discussion directly with field-based experiences. In the first week of the program, students participated in field placements with human rights organizations, including local non-governmental organizations like India Rural Research and Development and international groups such as the United Nations Commission on Human Rights. The second and third weeks of the program included morning lectures and group discussions between the Indian and American students and afternoon field trips to local Indian legal institutions, such as Tihar Prison, Asia's largest correctional facility.

Having returned to the US, students continue to work closely with their field placement organizations on research papers focused on a topic of mutual interest. Subject matters are diverse and range from the topic of gender affirmative action to issues of access to legal aid in rural communities to analysis of information dissemination through children's television programing.

Connecting to Las Vegas: The Meaning of Place

Andrea Dassopoulos, Barbara G. Brents, Christie D. Batson and Robert Futrell,
Department of Sociology

This paper explores the relationship between the symbolic meaning of place and residents feelings of attachment to the neighborhoods and the cities in which they live. As a young and rapidly growing metropolitan area severely impacted by the recent economic downturn, Las Vegas is a rich context for exploring issues of place attachment. We create an empirical portrait of residential life in Las Vegas, using data collected from five focus groups we conducted in 2009 and from the Las Vegas Metropolitan Area Social Survey (LVMASS), a neighborhood-based survey assessing residents attitudes toward environmental, economic, and quality of life issues in the valley.

We find, consistent with prior research, that residents experience stronger feelings of satisfaction, contentment, and attachment to neighborhoods that meet their physical and social needs. These needs include neighborhood amenities (such as parks, public transportation, shade), quality and long term neighbors, opportunities to interact, and low physical disorder, decay and crime. Residents respond negatively to rapid growth, citing sprawl, lack of social cohesion, and transient neighbors as destructive to residential life while still expressing a sense of pride and attachment to the city. We explore the identity of Las Vegas as a place and how its narrative influences residential attachment.

Producing God: Spectacle Creation and Entertainmentization in the Megachurch

Lori Fazzino, Department of Sociology

This research looks at the roles of recent advancements in Internet technologies, online religion, the ability to simultaneously stream live performances into various satellite church locations, and secular popular cultural references such as televisions programming, movies, and music in creating Evangelical scripts. In the context of the megachurch, media technologies are used to simultaneously produce familiar feelings of comfort and dismantle mental boundaries. Further, secular media and music references are mediums where the megachurch actively produces sacred experience through reconstructing and/or redefining the profane as sacred. Presenting data collected through participant observation and semi-structured interviews, this paper is a critical ethnographic analysis of the use of technology and Evangelical scripts within a Las Vegas megachurch. By utilizing the concept of cultural producers, transmitters, and receivers, I examine the ways in which megachurches actively produce a God experience for their attendees. I introduce the concept of producing God as a way to suggest that religious experience is not divinely-created but human-produced by religious leaders. Relying on Debord's theory of spectacle creation, the findings suggest that Evangelical megachurches utilize media technologies and religious scripts as effective tools in transmitting human-produced religious experiences through entertainmentization, instant sensationalism, and emotional manipulation resulting in the establishment of community and social connection as spectacle commodities produced by the megachurch megaspectacle.

Our Side of the Fence: How Minutemen Differ from the National U.S. Opinion on Immigration and other Social Issues

Candace Griffith, Department of Sociology

Nativist groups have played a role in American society since mass immigration started. The current nativist groups, most commonly known under the name Minutemen, are no different than the nativist groups from the 19th Century. The messages they support and the legislation they are lobbying for are similar to the Know Nothing Party of the 1850s, and other groups through the 1920s. How different are their opinions and thoughts on immigration and other social issues from the general public? My research uses a survey constructed from General Social Survey (GSS) questions from 2004-2010, and sent out through the listservs of the nativist groups to collect their member's thoughts and opinions on immigration, same sex marriage, marijuana laws and other relevant social issues. These findings are then compared to the respondents of the GSS 2004-2010 to determine the differences that exist between the two groups. Using regression analysis, I present the findings and determine the extent of differences and similarities.

A Study of Constitutional Law and Justiciability in National Security and Nevada
Ramir Hernandez, School of Law

My presentation will focus on the questions of justiciability in the areas of National Security Law and foreclosure law in Nevada. Specifically, I will discuss the question of whether those enemy combatants detained at Guantanamo Bay and other detention centers have a justiciable right to bring their cases before the United States Courts. In addition, I will describe my research into the question of whether the judicially run foreclosure mediation program in Nevada presents a justiciable claim, and if it does, whether this violates separation of powers.

Desiring Change: Conceptualizing the Socio-Cultural Efforts of the U.S. Sex Workers Rights Movement

Crystal Jackson, Department of Sociology

For marginalized communities demanding rights and recognition, narratives of normalization and respectability are often strategically embedded into activist efforts. This is particularly salient for sex worker activists, as sex work is often criminalized (sale of sex) or heavily regulated (erotic dance), and consistently stigmatized. Drawing on ethnographic observations of a U.S. umbrella sex workers rights organization from 2010 through 2011, and 15 in-depth interviews with leading members of the organization nationally and locally, I explore how sex worker activists describe their external actions and goals around social/cultural change. The use of art, performance art, public protest, and educational outreach are normalization strategies used by activists to shift the label from criminals and deviants to deserving laborers and everyday people. These articulations of labor and identity rely on a politics of respectability and normalization to counter gendered stereotypes of sex workers. These tactics combine into rhetoric of citizenship. Overall, U.S. sex worker rights activists aspire for full recognition as sexual citizens (Chateauvert 2011, Rubin 1984) as a group stigmatized for violating gender norms and sexual norms around economic behavior.

Externship with Bridges Across Borders Southeast Asia, Community Legal Education Initiative (BABSEA CLE)

Hyungseon Jeong, School of Law

I externed last Summer with a Thailand branch of a non-profit organization called BABSEA CLE. My main assignment was to build a Community Legal Education relationship with a local LGBTQ community. Such relationship was needed for BABSEA CLE to later teach LGBTQ rights.

Therefore, I had to be friends with the community. Then, we had to be able to speak about uncomfortable topics such as discrimination in medical care, employment, and right to enjoy. In fact, HIV/AIDS and STD's were going to be big topics and such topics were very taboo.

Therefore, I started visiting semi-weekly a local non-profit LGBTQ office to start meeting and teach them English as a gateway to CLE and to allow the community to be more comfortable with me. Initially, the community was fearful, hence, I started with only one student. However, rumors spread that I was nice and that the lessons were fun. Thus, I later came to teach over ten students. The first few lessons involved fun games and daily languages involving directions, ordering food, traveling, and booking hotels.

As the community grew more comfortable, we discussed discrimination via Lady Gaga's "Born This Way." Subsequently, the community asked to teach English spoken while visiting doctors, and some sex workers requested a lesson on negotiating with their clients. Meanwhile, I completed writing textbooks and lesson plans for the community, discussing topics such as as HIV/AIDS, STD's, rights to medical care, employment, and equal enjoyment.

HIV/AIDS, STD's, Rights to Medical Care, Employment, and Equal Enjoyment

Christopher Conner, Department of Sociology

The role of the promoter in the music business has always existed; Woodstock for instance, did not create itself. Despite the fact that concert events are taking on an enhanced level of complexity the academic literature rarely recognizes these individuals. Elaborate visuals, lighting displays, and often multiple forms of entertainment (e.g. carnival rides) are utilized to create an 'experience' that distinguishes modern events from contemporary concerts. This 'experience' is increasingly engineered by one person: the promoter. Sociologically, this is interesting because performers and rock stars used to be the central figures in music. The promoter, who originally was little more than an events bookkeeper, is now the creative genius in popular music. The event, and thus the promoter, has emerged to as the new central concept in music fans experience. The promoter is the central figure who helps organize, provide meaning, and provide substance to the music industry. In return, the promoter is able to take their place as an iconic celebrity even if only short lived. The promoter is in one sense a public quasi-political figure, and in another sense a new kind of artist. This talk will discuss the concert promoter's importance to the sociology of music, culture, and symbolic interaction. Studying this phenomenon also has larger implications. The world of music is but a reflection of the world in which we live.

Graduate & Professional Student Research Forum
Social Science
Platform Session D
UNLV Student Union Room 209

9:00 – 9:15am	Michael Lee, Department of Management Information Systems
9:15 – 9:30am	Rachel Macfarlane, Department of Sociology
9:30 – 9:45am	Mary McInturff, Department of Communication Studies
9:45 – 10:00am	Genevieve Minter, Department of Sociology
<i>10:00 – 10:15am Break</i>	
10:15 – 10:30am	Kenneth Retzl, Department of Political Science
10:30 – 10:45am	Regan Rockzsfforde, Department of Economics
10:45 – 11:00am	Susan Roe, Department of Hotel Administration
11:00 – 11:15am	Tyler Schafer, Department of Sociology
11:15 – 11:30am	Sarah St. John, Department of Sociology
11:30 – 11:45am	Maryam Stevenson, Department of Political Science
11:45am – noon	Pavel Vasilliev, Department of Sociology

Identifying Effort Estimation Factors for Corrective Maintenance in Object-Oriented Systems

Michael Lee, Marcus Rothenberger and Ken Peffers, Department of Management Information Systems

This research explores the decision-making process of expert estimators of corrective maintenance projects by using qualitative methods to identify the factors that they use in deriving estimates. We implement a technique called causal mapping, which allows us to identify the cognitive links between the information that estimators use, and the estimates that they produce based on that information. Results suggest that a total of 17 factors may be relevant for corrective maintenance effort estimation, covering constructs related to developers, code, defects, and environment. This line of research aims at addressing the limitations of existing maintenance estimation models that do not incorporate a number of soft factors, thus, achieving less accurate estimates than human experts.

The Power and Problem of Photographs

Rachel Macfarlane, Mark Ohrtman, Jessica Jonikas, Marie Hamilton, Judith Cook and
Department of Sociology

This presentation explores the options that confront a researcher using visual medium to facilitate interpretive research. While many different versions of these poignant methods have been used, I will focus on two of the most common: photo voice and photo elicitation. Photo voice seeks to empower marginalized groups who take photos and meet to discuss them in order to organize and develop policy goals in conjunction with research (Wang and Burris, 1997). Photo elicitation uses images, not necessarily taken by participants, to stimulate more detailed responses to interview questions. (Harper, 2002) This presentation shares the methods and preliminary results of a study using photo elicitation and semi-structured interviews to understand the individual experiences of participants in mental health recovery. Participants were selected from a larger quantitative study on the psychological outcomes for people in a peer-led, mental health, self-management intervention (Cook et al., 2009). I will discuss methodological, technical, ethical and bureaucratic dilemmas faced using these methods in the course of the research and presenting our initial findings.

Giving Students a Voice in the Evaluation Process: Peer Feedback in the Basic Course

Mary McInturff, Department of Communication Studies

This paper is focused on a peer feedback model for the basic communication course (Public Speaking). One of the main concerns addressed here is the benefit of peer feedback for students, which allows them to voice their opinions in the process of evaluating speech assignments. Though the primary focus of this essay is the value of peer feedback, the model presented also includes increased student participation, peer learning, and the benefits of speech rehearsal. The central argument advanced is that a model encompassing these elements can have value to both instructors and students, and is valuable despite the possibility of an increased time commitment from basic communication course instructors.

Is the American Pit Bull Terrier a Social Problem? Aggression, Deviant Subcultures, and Dog Ownership

Genevieve Minter and Andrew L. Spivak, Department of Sociology

This study examines the social role of the American Pit Bull Terrier as a symbol of aggression and an icon of deviant subcultures. We utilize public media records, academic studies, and other recorded accounts of aggressive incidents to propose an interpretation of how, in the context of the social history of modern dog-ownership, the issue of canine aggression has come to be so strongly associated with the Pit Bull breed. Integrating media portrayals of attack incidents with the image of deviant portrayals by the dog fighting subculture and a twenty year study by the Centers for Disease Control and Prevention of dog bite statistics, our study explores the evolution of social images of dangerous dogs, culminating in the current reigning status of the Pit Bull. Our findings suggest that the social construction of the Pit Bull as an icon of aggression has (1) obscured its identification as a discretely defined breed and (2) has encouraged confusion and mislabeling of dogs involved in bite incidents. Further, due to the breed's violent image, the social construction of the Pit Bull as an icon of aggression has pervaded popular culture with a deviant status that which like other violent subcultures, is simultaneously stigmatized and glorified. We conclude that this dual image encourages irresponsible ownership that leads to a social feedback mechanism of stigma, hyper-masculine allure, increased bite incidents, and public fear.

Foreign Aid and Conflict in Sub-Saharan Africa

Kenneth Retzl, Department of Political Science

Past research has discovered differing relationships between foreign aid and conflict. Some have concluded that aid moderates conflict while others determined foreign aid, at the very least, contributed to conflict experienced within countries. This research also attempts to determine foreign aid's effect on conflict, but departs from past studies in an important way. Conflict is separated into three categories: ethnic conflict, genocides/politicides and civil wars. By focusing on Sub-Saharan Africa and utilizing rare event logistical regression techniques, this research determined that foreign aid has a moderating effect on all types of conflict. What remains unknown is why this relationship exists. Is foreign aid being utilized to create effective governmental and economic institutions, or is development aid being diverted to military aid in times of conflict?

The Economic Impact of Marriage Equality in the State of Nevada

Regan Rockzsfforde, Department of Economics

In a series of analyses, this paper examines the extent and magnitude of the economic impact of legalizing same-sex marriage in the state of Nevada. The facts that the Silver State is one of the gambling centers in the world and is home to Las Vegas, the wedding mecca of the world, make a very compelling case why Nevada will benefit tremendously if it allows same-sex marriage. The predicted surge in spending due to marriage equality will have a positive impact in a state whose economy relies heavily on tourism and gambling.

In the first three years after enacting a marriage equality law, I predict that resident same-sex couples will generate a total spending of \$179 million while out-of-state couples will add another \$83 million. The total economic impact is \$262 million. As a result, the state and local revenues will increase by \$18 million.

The increase in spending and tourism will certainly create new jobs, but future studies must look at how many jobs in each sector and how much earnings will result from the estimates in this paper. Furthermore, public savings from government programs like health care and welfare that will result from marriage equality in Nevada must also be examined in this context.

Does National Labor Costs Affect International Competitiveness in the Tourism Industry?

Susan Roe and Kahlil Philander, Department of Hotel Administration

This study tests whether national labor costs affect international competitiveness in the tourism industry. Using a fixed effect model design and two-stage least squares estimation, a set of 40 countries are examined during the period from 1990 to 2010. The study reveals that labor costs may be an important supply side determinant of tourism expenditures, and supported the hypothesis of a negative relationship between these two variables. Implications of the reported findings for industry and for government macroeconomic policy are provided. Potential extensions of these findings to the tourism area life cycle model are also discussed.

Institutional Environmental Claims and the Social Construction of Sustainability

Tyler Schafer, Department of Sociology

Sustainability reports, plans, or visions are now a ubiquitous feature on most corporate or governmental websites. Indeed, environmental sustainability has become an important variable in many organizations corporate images. This paper examines the sustainability plans and reports of two agenda setters for Southern Nevada: NV Energy and the Southern Nevada Water Authority (SNWA). Couching the essay in the social construction of social problems literature, I examine their reports as sustainability claims and the institutions themselves as sustainability claims-makers, in order to explore, in light of empirical data regarding ecological limits of the Las Vegas Valley, the social constructedness of sustainability. A systematic content analysis of the two organizations statements about their commitment to sustainability illuminates the wide range of uses to which the term sustainability is applied. It also illustrates the greater emphasis placed on economic sustainability than social sustainability or environmental or ecological sustainability. I argue that the two organizations are more concerned with sustaining their respective service provision in the face of the region's projected massive population growth than with a comprehensive sustainability plan that pays equal attention to economic, social, and ecological sustainability. This focus results in myopic strategies that largely ignore the ecological limits the region is rapidly approaching.

Theorizing the Differences in Self-Rated Health between Latino Subgroups

Sarah St. John, Department of Sociology

I use Eduardo Bonilla Silva and George Yancey's theories on the transitioning American racial structure as a framework to examine whether there are differences in health between Latino subgroups. Both Bonilla Silva's triracialization theory and Yancey's Black/Nonblack divide thesis assert that the color of a person's skin affects his or her life chances in America; such as the level of education, income, and wealth a person will acquire throughout life, or level of residential segregation one will experience. I use these theories and data from the 2001-2010 Behavioral Risk Factor Surveillance System in order to examine the self-rated health of three Latino subgroups in comparison to that of non-Hispanic blacks and non-Hispanic whites. The Latino subgroups consist of Latinos who chose a black racial identification (black Latinos), Latinos who designated a white racial identification (white Latinos), and Latinos from other racial backgrounds (other Latinos). Bonilla Silva's triracialization thesis predicts that the health outcomes of the Latino subgroups will rank hierarchically according to their skin tone, with white Latinos rating their health higher than all other Latino subgroups and blacks, but lower than non-Hispanic whites. Black Latinos will rate their health better than blacks will rate their health, and other Latinos self-rating will be between the ratings of whites and blacks. Yancey's Black/Nonblack thesis predicts that black Latinos self-ratings of health will closely resemble that of blacks, while other Latinos and white Latinos will have self-rated health more closely resembling that of whites.

Explaining (Waning) Congressional Support for Skilled Worker Visas

Maryam Stevenson, Department of Political Science

This paper will examine the Congressional politics associated with legislation on skilled workers, specifically the H-1B visa. The H-1B visa is the only nonimmigrant visa currently available for skilled workers who have at least a Bachelor's degree or its equivalent in work experience in a specialty occupation. It was created as it exists today by the Immigration Act of 1990, which also created an annual cap of 65,000 on the number of available visas per fiscal year.

The cap remained intact until legislation was passed in 1998. Since then, Congress has been faced with multiple variations of legislation to increase the number of skilled worker H-1B nonimmigrant visas available in most Congressional sessions. Five pieces of legislation were passed from 1998 to 2004. Of these five, none were originally passed as individual pieces of legislation and were only passed when attached as riders. Additionally, since 2004 no H-1B legislation has been passed by the Congress although there have been ten pieces of legislation submitted to the House and Senate from 2006 to 2008 and the political and economic climates of the mid 2000s were similar to those of the late 1990s and early 2000s. This paper will attempt to explain why policies were successful only as riders throughout the 1990s and 2000s, and completely unsuccessful after 2004.

Homicide, More Gender Equality in Victimization? Homicide Rates and the Victim Gender Ratio

Pavel Vasilliev and Andrew L. Spivak, Department of Sociology

World Health Organization (2002) data indicates a substantial variability across national rates of homicide. One interesting pattern in these rates that has been little explored is a positive relationship between the overall homicide rate and the male / female homicide victim ratio. While all countries have a greater proportion of male homicide victims compared to female homicide victims, this gender disparity is more pronounced for countries with higher overall homicide rates. Thus, countries with lower overall homicide rates have greater gender equality in victimization (Walsh and Ellis, 2006). The purpose of current research is to determine the extent to which that relationship exists within the U.S. across a sub-national unit of analysis. Thus, we explore the relationship between overall homicide rates and victim gender ratios across metropolitan statistical areas (MSA) controlling for the overall sex ratio in the population as well as other demographic indicators.

Graduate & Professional Student Research Forum
Education
Platform Session A
UNLV Student Union Room 211

9:30 – 9:45am	Elif Adibelli, Department of Teaching & Learning
9:45 – 10:00am	Zahra Buttar and Theodore Ransaw, Department of Teaching and Learning
10:00 – 10:15am	Jillian Cohen, Department of Educational Research, Cognition and Development
10:15 – 10:30am	Mehmet Dulger, Department of Teaching and Learning

10:30 – 11:00am Break

11:00 – 11:15am	Lori Fulton, Department of Teaching and Learning
11:15 – 11:30am	Su Gao, Department of Teaching and Learning
11:30 – 11:45am	Elayna Hocking, Department of Educational Research, Cognition and Development

Exploring How Elementary Teachers Translate Their Nature of Science Views into Classroom Practice after a Graduate Level Nature of Science Course

Elif Adibelli, Hasan Deniz and Mehmet Fatih Dulger, Department of Teaching & Learning

The purpose of this research proposal is two-fold. The first purpose is to examine to what extent a graduate level nature of science (NOS) course that is designed around explicit-reflective conceptual change learning principles can improve elementary teachers' NOS views. The second purpose of this study is to explore how elementary teachers translate their NOS views into classroom practice after completing a graduate level of NOS course. The participants of this study consist of elementary teachers who got involved in a Summer Institute. The NOS course was taught by the first author, but the data were analyzed by all authors. They first analyzed written pre- and post-responses of the teachers in the questionnaire to assess changes in elementary teachers' NOS views. Then they watched elementary teachers videotaped NOS lessons to elicit the relations between their NOS views and classroom practice. The analyses indicated that elementary teachers improved their NOS views after the graduate level NOS course. Moreover, elementary teachers' NOS views are related to their classroom practice.

Life Behind the Veil: The Dating Practices of Afro American Muslims

Zahra Butar and Theodore S. Ransaw, Department of Teaching and Learning

To be Afro American is to belong to a group that share a common ancestry and experience of the Diaspora. To be a Muslim in America means to follow the often-misunderstood religious identity of Islam while living in a protestant dominated culture. Since it requires identification and acceptance of a culture to be member, affiliation is most likely a culture's most salient feature. Culture and affiliation are fluid boundaries of multiple identities that often serve as spaces for identity formation, negotiation and acceptance. These identities require transmission from one generation to the next in order to survive. This is a proposal to conduct a phenomenological study using grounded theory to answer the question, how do Afro American Muslims negotiate both their ethnic identity and their religious identity while dating?

Promoting Academic and Social Competence Through Executive Skills Development

Jillian Cohen, Department of Educational Research, Cognition and Development

Executive functioning in children and adolescents has been a topic of interest over the last two decades due to its importance in school functioning. Even when other cognitive abilities are intact and within the normal range, EF still has strong predictive power and association with academics, social-emotional functioning, behavior, mental health, and general living and vocational skills (Robinson & Struthers, 2011). Much of the literature in this field surrounds development of EF, the role of EF in academics and social interaction, disorders associated with deficits in EF, assessment and early detection of EF deficits, and interventions to help improve EF in both academic and social contexts. This paper session will focus on the roles of EF in both learning and social competence and disorders associated with EF. In addition, the session will discuss several tools that can be used by school psychologists to assess EF. Finally, the presentation will review evidence-based interventions and instructional strategies that can help students either improve executive functioning or effectively cope with their deficits.

Supporting Fourth Graders Ability to Interpret Graphs through Real-time Graphing Technology: An Exploratory Study

Mehmet Dulger and Hasan Deniz, Department of Teaching and Learning

This study examined to what extent inquiry-based instruction supported with real-time graphing technology improves fourth graders ability to interpret graphs as representations of physical science concepts such as motion and temperature. This study also examined whether there is any difference between inquiry-based instruction supported with real-time graphing software and inquiry-based instruction supported with traditional laboratory equipment in terms of improving fourth graders ability to interpret motion and temperature graphs. Results of this study showed that there is a significant advantage in using real-time graphing technology to support fourth graders ability to read and interpret graphs.

Science Notebooks as Tools for Developing Scientific Understandings

Lori Fulton, Department of Teaching and Learning

Science education reform calls for learners to be engaged in hand-on, minds-on activities related to science. As part of this reform, learners use writing as a means of documenting their work and developing their understandings. Science notebooks have been incorporated into many elementary classrooms for this purpose, but use tends to focus more on documentation than the development of conceptual understandings.

This study examined student outcomes in terms of notebook use and conceptual understandings when teachers were engaged in a professional study group focused on the development of students scientific concepts through writing in the notebook. A multiple-case study was conducted of three second grade teachers and their classrooms from an urban school in the Southwest United States. This school is in a low socio-economic area, with 92% of the students receiving free and reduced lunch. The majority of the students at the school are Hispanic (90.4%) and language development is a concern with 68.2% of the students classified as having Limited English Proficiency.

Data were collected in the form of interviews with teachers, classroom video observations, pre/post tests, and student work during the spring of 2011. Data analysis demonstrated that students in classes of teachers who had participated in the study group for a longer period of time demonstrated greater use of the notebook for developing conceptual understanding, rather than just documenting their activities, and had a stronger understanding of the concept on post tests.

Relationship Between Teachers' Beliefs and Practice of Review Lesson and Student Learning

Su Gao and Jian Wang, Department of Teaching and Learning

Review lesson in teaching process presumably influences the quality of teaching and student learning. Chinese students showed much higher achievement than their U.S. peers in recent PISA study and Chinese teachers are observed to be more likely to use review lesson in their science teaching process. Therefore, it is reasonable to question whether and to what extent review lessons actually influence Chinese student learning in science. This study explores the relationship between teachers' review lesson and student performance drawing on data from 3 chemistry teachers and 222 students in a Chinese high school. It found that all three teachers developed different understandings of review lessons, which lead to conduct review lesson in different manner and different student achievement in chemistry.

Education Platform Session A – Room 211
11:30 – 11:45am

National Association for School Psychologists 2012 Annual Convention

Elayna Hocking, Department of Educational Research, Cognition and Development

The purpose of this grant funding request was to attend the National Association of School Psychologists (NASP), 2012 Annual Convention being held in Philadelphia, PA, February 21-24, 2012, for professional development and not presentation. Over 1,000 peer-reviewed presentations will be available on valuable skills and the latest research for profession-wide issues.

I will attend a workshop on linking an integrated school neuropsychological model to assessments and interventions and plan to present information on that and any other highlights in my time 10 minute speaking slot.

Graduate & Professional Student Research Forum
Education
Platform Session B
UNLV Student Union Room 213

9:30 – 9:45am Siping Liu, Department of Teaching and Learning

9:45 – 10:00am Theodore Peetz, Department of Educational
Research, Cognition and Development and
Jennifer Pharr, School of Public Health

10:00 – 10:30am Break

10:30 – 10:45am Yun Peng, Department of Educational Research,
Cognition and Development

10:45 – 11:00am Qingmin Shi, Department of Teaching and Learning

11:00 – 11:15am Vivian Surwill, Department of Educational
Research, Cognition and Development

11:15 – 11:30am Lina Zang, Department of Teaching and Learning

What Makes a Difference in Reading: Implications from PISA Data

Siping Liu, Department of Teaching and Learning

The Program for International Student Assessment (PISA), coordinated by the Organization for Economic Cooperation and Development (OECD), is a system of international assessment of student academic achievement of different countries. Reading is the domain of the most recent 2009 PISA. PISA targets at 15-year-old students, i.e., those who are approaching the end of compulsory schooling by measuring how well young adults are prepared to meet the challenges of today's knowledge societies.

PISA also asks the participating students, their teachers and principals to complete questionnaires. These questionnaires collect information related to reading development such as students home background, reading motivation and habits, and teaching and learning processes at school.

Guided by theories related to reading development such as socio-economic status (SES) and self-efficacy, and based on student reading achievement and the information of student and teacher questionnaires of 2009 PISA, our study compares two participating jurisdictions, China and the United States. Of the 65 PISA participating jurisdictions, China ranks the first and the U.S. ranks 17th, slightly above the average of all the participating jurisdictions. Our study examines some major factors related to students reading achievement such as SES, students self-concept, types of reading materials, students reading strategies and teaching strategies. Our preliminary analysis reveals that Chinese and American students demonstrate significant differences in all the examined areas. Our study offers useful implications for policymakers as well as teachers involved in teaching reading literacy.

Nike, Livestrong and Gamechangers: Does Cause and Social Marketing Impact Consumer Behavior

Theodore Peetz, Jennifer Pharr and Nancy Lough, Department of Educational Research, Cognition and Development

Cause-related marketing has been defined by Pringle and Thompson (1999) as a strategic positioning and marketing tool which links a company or brand to a relevant social cause or issue, for mutual benefit (p.3). The LiveStrong brand is a well known cause-related brand, associated with the Lance Armstrong Campaign and supported by Nike. LiveStrong as a "cause" based brand comprised of initiatives directed toward raising money and awareness for cancer research, supports cancer survivors in their efforts to live a full, healthy life.

Social marketing has been defined as the application of commercial marketing technologies to the analysis, planning, execution and evaluation of programs designed to influence the voluntary behavior of a target audience in order to improve their personal welfare and that of their society (Andreasen, 1995, p. 7). The Gamechangers campaign is an example of a social marketing initiative supported by Nike. In the case of the "Red" Gamechangers campaign, education through sport (soccer) clinics were designed by professional athletes in Africa to change the behavior of the targeted group (children in Africa) with regards to AIDS / HIV prevention. Nike supports multiple social marketing initiatives under the auspices of the Gamechangers campaign, however for purposes of this study, only the Red campaign was utilized.

Increasingly, corporate social responsibility is one aspect of branding that many companies are engaging in to improve their brand image and appeal in a unique way to target markets (Bradish & Cronin, 2009). In the case of Nike, these two distinct marketing strategies appear to be directed toward demonstrating corporate social responsibility and thereby building brand equity. In an effort to evaluate the components comprising brand equity impressions of Nike branding were ascertained based on information presented from the Livestrong CRM campaign and the Red Gamechangers social marketing campaign. Thus, the purpose of this study was to examine consumer perceptions of cause and social marketing campaigns, and the benefits to Nike (the premier sport brand) for investing in marketing campaigns advancing social change. The research questions were: 1) Does cause marketing influence purchase intention, brand image, brand loyalty, brand switching and 2) Does social marketing influence purchase intention, brand image, brand loyalty, brand switching among potential consumers? This cross-sectional study utilized a convenience sample of college students.

Preliminary findings suggest cause marketing can influence purchase intention, brand loyalty, and potential brand switching. However brand image remained relatively unchanged. Similar results were found for social marketing, with regard to influence on purchase intention, brand image, brand loyalty and brand switching among potential consumers. Brand image appeared to be more significantly impacted by social marketing, however this result may have been influenced by the requirement for participants to consume the information presented. Discussion of related implications for scholars and marketing professionals will be presented.

Activities and Accomplishments in Various Domains: Relationships with Creative Personality and Creative Motivation in Adolescence

Yun Peng and Eunsook Hong, Department of Educational Research, Cognition and Development

This study examined relationships between five personal traits and adolescents' activities and accomplishments in five domains music, visual arts, creative writing, science, and technology. Participants were 439 tenth graders (220 males and 219 females). The relationships were examined using confirmatory factor analysis in which factor correlations are disattenuated of measurement errors. High school students who are active and accomplished in art-related domains (music, visual arts, creative writing) viewed themselves as open to experience, good at creativity (creative self-efficacy), and/or intrinsically motivated. Conscientiousness and perceived ability were not related to any activity domains. None of the personal traits were related to technology activities. Personal traits appear to introduce some variability in the developmental trajectory of potential talents.

Relationship between Teacher Efficacy and Student Achievement in Number Understanding: Analysis of TIMSS 2007 Data

Qingmin Shi, Jian Wang and Shaoan Zhang, Department of Teaching and Learning

Teacher self-efficacy has been considered as an important factor for improving teaching and student learning and thus, became an important focus of teacher education reform (Ashton, 1984; Goddard, Hoy, & Woolfolk Hoy, 2000; Ross, 1994; Scharmann & Hampton, 1995). Such an idea is reflected in the popular practices of teacher education that intend to improve teaching practice and thus, student performance through strengthening teachers' self-efficacy. However, some unresolved issues remain in this assumption and continue to perplex researchers working in the area of teacher efficacy (Tschannen-Moran, Hoy, & Hoy 1998). When examining large-scale database such as the Trends International Mathematics and Science Study (TIMSS) some inconsistent results emerged which seem to go against these commonly held assumptions about teacher efficacy and student achievement. The purpose of the study was to reexamine the relationship between teacher efficacy in teaching number and student achievement in number understanding using relevant TIMSS 2007 data. The research questions guided this study were: Do students taught by teachers who report higher self-efficacy have higher achievement than the students taught by teachers who report lower self-efficacy? Is there a positive relationship between teacher efficacy in teaching number and student achievement in number understanding? Does teacher efficacy in teaching number significantly predict student achievement in number understanding? Drawing on TIMSS 2007 data from 15 countries, we found that the relationship between teacher efficacy in teaching 10 topics of number and student achievement in number understanding are paradoxical. The positive relationship between teacher efficacy and student achievement was challenged in the context of international and comparative studies.

The Effects of Relevance Instructions on Immediate and Delayed Comprehension of Expository Text

Vivian Surwill and CarolAnne Kardash, Department of Educational Research, Cognition and Development

We investigated how relevance instructions affect memory for an expository text both immediately and after a one week delay. Forty-three female and 11 male undergraduates read a 1,161-word passage, which described the characteristics of four remote countries (Andorra, Anguilla, Honduras, and Pitcairn) under one of three types of relevance instructions: general, specific, or control. Students completed free recall both immediately after reading and one week later, when they also completed cued recall and sentence recognition tests. Results indicated that general instructions facilitated free recall more than specific instructions or instructions to read for understanding. Relevance instructions had no effect on cued recall or sentence recognition.

The Embodiment of Mathematical Modes of Thinking in the New Chinese Curriculum: An Analysis of System of Linear Equations with Two Unknowns

Lina Zang, Department of Teaching and Learning

By comparing three editions of Chinese curriculum standards, three editions of textbooks and three teachers' lesson plans, the study analyzed the embodiment of mathematical modes of thought (MMT) in Chinese curriculum system. The finding shows that, the former standard has more detailed MMT while the current standard has fewer. All the three editions of textbooks embody relative MMT totally following the requirement of syllabus; teachers are able to understand the textbooks well, follow textbooks cover by cover; but they are short of the ability to abstract MMT by themselves. The finding shows the current situation of the embodiment of MMT in three levels of new Chinese curriculum--formal curricula, perceived curricula and operational curricula, providing suggestions for the further curriculum reform, teaching and teachers' professional development.

Graduate & Professional Student Research Forum
Arts and Humanities
Platform Session A
UNLV Student Union Room 218

8:30 – 8:45am	Becky Bosshart, Department of English
8:45 – 9:00am	Lauren Cagle, Department of English
9:00 – 9:15am	Shannon Christine Eakins, Department of Art
9:15 – 9:30am	Jared Goode and Margaret Werning, Department of Film
9:30 – 9:45am	Mary Catharine Martin, Department of English
9:45 – 10:00am	John Maltese, Department of Theatre
<i>10:00 – 10:30am Break</i>	
10:30 – 10:45am	Anthony Merlino and Mike Smith, Department of Music
10:45 – 11:00am	Megan Morey, Department of Theatre
11:00 – 11:15am	Benjamin Morris, Department of English
11:15 – 11:30am	Anthony Guy Patricia, Department of English
11:30 – 11:45am	Jordan Reynolds, Department of English
11:45am – noon	Wen Zhang, Department of Music

Story Performance: How Writers can Spit It Out and Into the Ears of NPR Listeners

Becky Bosshart, Department of English

Publication is the ultimate goal for fiction writers, but it doesn't need to be the only one. Radio offers an exciting and largely untapped platform for writers to showcase their stories to a mass, yet well educated audience. Radio wave exposure. In fact, this medium could lead to traditional forms of publication. UNLV MFA in fiction candidate Becky Bosshart will present her findings from the Association of Writers & Writing Programs 2012 Annual Conference panel on this subject. She'll share tips from top narrative radio producers, Pat Walters, Lulu Miller, Alex Kotlowitz, Starlee Kine and Johanna Zorn (from This American Life, Radiolab and the Third Coast Festival). Her presentation will explain narrative radio, its history and discuss which types of prose work best on the radio. Bosshart will also show how she navigated the process with her own thesis story Stripped, a Las Vegas-centric prose performance.

Reading the Way into Writing: Using Bakhtin's Speech Genres to Reimagine the Composition Reader

Lauren Cagle, Department of English

In basic composition, readings can serve a number of functions, such as providing content for discussion, serving as examples for explaining rhetorical elements, and presenting students with ideas to respond to in their own writing. Assigned reading should also help students recognize and understand the kind, or kinds, of writing they are expected to produce in college. Bakhtin's analysis of speech genres, and how learning them shapes our ability to make meaningful utterances in particular contexts, provides the theoretical basis of a direct link between reading and writing. Scholars have persuasively argued the applicability of Bakhtin's theories to the composition classroom, but their focus tends to be on Bakhtin's concept of dialogism. My paper argues that his concept of speech genres also provides fertile ground for pedagogical theory. Specifically, speech genre theory should inform what readings instructors assign to composition students, and in turn what texts are included in composition textbooks. Moreover, explicit pedagogical attention to speech genres enables students to make self-aware and motivated formal decisions while writing without relying on mandates produced by reductive formalism. This generic self-awareness is a key component of students successful transitions between the many types of college writing they will encounter, by enabling them to make informed choices about how and how much to adhere to or break from generic expectations. An analysis of the reading samples included in the University of Nevada, Las Vegas FYC textbook shows that the textbook cannot currently support such student awareness of genre.

Forever Staycation

Shannon Christine Eakins, Department of Art

Driving through Barstow, California last year I spotted a furniture warehouse on the side of the highway having a blowout sale, nearing the end of their time. They had made their final bid a last attempt at salvation by renting or buying or investing in an inflatable gorilla to lure prospective buyers to the lot. This gargantuan beast, through fatigue, sadness, loss of energy, neglect, or simple refusal, was un-inflated or de-inflating, its hand being the only inflated part of its massive body, hanging over the edge of the roof, beckoning and dying. The inflatable (a gorilla, in this case) is a symbol of this disconnection; it is a horrible, misplaced, bloated, weakened, large, iconic symbol. King Kong. Las Vegas. This is my thesis work.

I have purchased a (similar) 30' tall inflatable/gorilla that was according to eBay used only once for a trade show. That such an object is disposable (single-use) in spite of its massive potential volume and overload of associations is a strong attraction for me, and for its place in this visual orientation. As an element of the thesis exhibition, it will be modified to become a part of a larger installation inflating, deflating, and contributing to a crowded cacophony of commercial-like activity in the museum. Gorilla. Cake. Animatronics. Icing. Fans. Bright lights. Turning the air conditioning off. Red inflatable dancing men constructions. Etc. Etc. The arrangement will respond or dominate the space that is too small for it. Like other recent projects, the inflatable is a metaphor or surrogate for expansion and loss simultaneously. It is a massive facade that can be folded into a duffle bag; it reflects my experiences here.

Arts and Humanities Platform Session A – Room 218
9:15 – 9:30am

Love In Idleness: The Future of A Short Film

Jared Goode and Margaret Werning, Department of Film

This is an oral and video presentation encompassing the making of and festival circuit of a short musical film entitled "Love In Idleness."

AWP 2012

Mary Catharine Martin, Department of English

The annual conference of the Association of Writers and Writing Programs, also known as AWP, brings together people from many aspects of the writing industry: book publishing, agents, writers, literary magazines, and Creative Writing Masters of Fine Arts students from around the country. It provides opportunities for networking with all of the above groups. It provides an ability to gain familiarity with literary magazines (short story publication in literary journals is central to most emerging writers' eventual book publication). It also provides an opportunity to discuss craft with established and emerging writers, to attend panels discussing those things, and to hear some of the world's most well-known writers read and discuss their work. Most of all, it enhances familiarity with, and therefore betters the navigability of, of what can be a somewhat intimidating world.

The 2012 AWP conference was held in Chicago from February 29 to March 3. While there, in addition to attending as many as possible of its more than 400 events, including readings by prominent authors Margaret Atwood, Jennifer Egan and Ha Jin, I familiarized myself with many of the more than 550 publishers, journals, and literary presses present at its Book Fair. My presentation will focus on what I learned attending those panels, discussions, readings and fairs.

Shakespeare Santa Cruz

John Maltese, Department of Theatre

During the summer of 2011 I participated in the acting artistic internship at Shakespeare Santa Cruz. Shakespeare Santa Cruz is a professional repertory company in residence at the University of California, Santa Cruz. The internship provided me with opportunities to play supporting roles in two mainstage productions (*Henry IV, Part 1* and *The Three Musketeers*), to take on a lead role in the all-intern fringe show (*Double Bind*), understudy major roles in mainstage productions, learn stage combat (single rapier and cavalry saber from fight director Gregory Hoffman), and take morning classes in movement and clowning taught by Patty Gallagher.

As a graduate student at UNLV pursuing an MFA in performance and seeking a career as a working actor, membership in a professional acting company granted me the invaluable experience of working at an organization performing work that I would like to continue post-graduation. I was able to experience the excitement and challenges of doing a long run of the same productions, roughly 30 performances of *Three Musketeers* alone, and my longest personal run of a show. The schedule of an acting intern was a daunting one, with days often starting at 8am and lasting until midnight. We worked for no pay and had to finance our own housing. However, the experience, the classes, the rehearsals surrounded by professional actors and directors, the contacts, the opportunity to network within the business, and the possibility of returning to Shakespeare Santa Cruz in the future were all benefits the experience.

Adelaide Fringe Festival

Anthony Merlino and Mike Smith, Department of Music

The Adelaide Fringe Festival is internationally known as one of the most progressive arts festivals in the world. This festival hosts a large number of diverse artists from many different mediums.

Attending this festival has allowed me to experience many different art forms, and give me the opportunity to learn from professionals in my field that I normally would not have been exposed to. It has become exceedingly important for musicians to travel and learn from international colleagues as this profession has become extremely culturally diverse.

Specially, my role in this project was to be the music director, composer, and a musician in the show. As a result of assuming these roles, it was imperative that I learned some of what my colleagues craft entailed so that I was effective.

Along with learning from other performers I was able to raise awareness of music technology and also allow others to explore new ways to express themselves. This is a frontier that few have begun to explore, and the Adelaide Fringe Festival was the ideal place to push the boundaries for my field.

I hope to share my experience with all who attend this conference.

Opportunities for Professional Development at the United States Institute of Theatre Technology (USITT) Conference

Megan Morey, Department of Theatre

The USITT Annual Conference and Stage Expo, to be held in Long Beach, CA from March 28-31, 2012, is the best annual opportunity for stage technicians to learn new skills, to explore new and existing technology, and to network in our field. Over 200 sessions are offered at the four-day conference, covering a wide range of topics and skill levels. The Stage Expo showcases both student and professional work from around the world, and provides the opportunity to meet with vendors nationwide to learn about new tools and advancements in theatre technology.

Technical Theatre is an ever-changing field, and in order to stay competitive one must remain abreast of the changes and developments that are happening throughout the world. The sessions offered at this conference demonstrate these new advances in technology, ways to implement green practices in our own theatres, and developments in safety procedures and regulations. The vendor expo also offers hands-on demonstrations of new technology and allows attendees to interface and build relationships with different vendors.

By attending the USITT Conference, I hope to learn new skills, explore new technology, expand my knowledge of safety protocol, and make new connections that would benefit the UNLV Theatre Department in my remaining 2 years in the program.

Europe Ekphrasis

Benjamin Morris, Department of English

During my time abroad I'll be composing ekphrastic seeing vignettes of the different cities, villages, and homes I visit. The term ekphrastic means that I'll take photographs and then construct written narratives about each one. The narratives will eventually arc and link. I'll start over in the next city or village, with the corresponding family.

What separates my trip and project from others is that I will not be taking the touristic route, paying for guided tours, etc. I'll be staying a few days with three families, one in each country: Holland, Germany, and Czech Republic. Through these families I'll get an authentic look into their lives, language, and culture. There will be an emphasis on language as I'm also required to do a translation for my degree.

I will also be staying in hostels in order to capture some of the traveler's experience. The travel time for this project spans well over a month. While the written process begins overseas, the final drafts will take several months to finish; at which point I'll be submitting them for publication.

I especially plan on working with textures and people. This is not about exoticizing what is foreign to my eye; it ' portraying the exquisite textures and people of European cities and countryside, the undeniable importance of history, while continuing with my focus on writing. While they can exist separately, the taken photographs and written pieces should be evaluated together, as one narrative component. Many writers in my program (including myself) have written ekphrastic pieces. What sets my project apart is the rare opportunity to not only visit European households but the intimacy of knowledge and experience I'll gain from my interactions with the families.

The Presence of Roaring Girls

Anthony Guy Patricia, Department of English

As a literary theory and a critical practice, Presentism seeks to make explicit connections between the past and the present as those connections manifest in the texts of both periods. Though so far applied only in the field of Shakespeare studies, Presentism offers a fruitful means of analyzing the works written by playwrights other than Shakespeare that shared the early modern era with him. To explore the implications of this assertion, Thomas Middleton and Thomas Dekker's seventeenth century city comedy, *The Roaring Girl*, serves as an exemplar. The issues associated with biological gender and its proper expression that the heroine of this play, Moll Cutpurse, raised in the character's own time find a number of striking correlates in contemporary debates about gender, sexuality, sexual identity, masculinity, and femininity that rage on unabated. One recent correlate that will share the stage with *The Roaring Girl* in this essay came to the fore with the casting of Chaz Bono on the television program *Dancing With the Stars*. This was an immediately controversial decision because Chaz Bono, not unlike Moll Cutpurse, was seen as a virulent threat to the natural order of the world given that he is a former woman and a lesbian who sought out hormone therapy and gender reassignment surgery in order to become a man. It shall be argued that Chaz Bono is as much of a roaring girl as Moll Cutpurse, and just as heroic in the still oppressively patriarchal and heterosexist society in which we live today.

Poetry France

Jordan Reynolds, Department of English

As an M.F.A. candidate in Creative Writing at UNLV, all students are required to spend time abroad. I was admitted into an NYU Creative Writing program in France, and spent over a month living in Paris and studying poetry with NYU Faculty. While in Paris, I visited several museums and practiced ekphrasis, writing about the art that struck me most in each museum. I also used the abroad time to complete some poems for a working manuscript. As a demonstration of the work I completed, I will give a short reading of the poetry that I wrote while in France, along with discussion and question/answer where necessary.

Peking Opera Bel Canto in Chinese Introducing its Vocal Training Process

Wen Zhang, Department of Music

Peking Opera is a Chinese cultural treasure with a history of over 200 years. This great art form has unique vocal tonality and breathing methodology. The lack of resources written in English has rendered the subject unapproachable to its foreign fans who do not understand the Chinese language. This writing provides information on Peking Opera's singing style and training process, and helps its foreign fans understand the vocal methodology by citing the singing theory in Bel Canto style.

An interview with a Peking Opera veteran introduces the traditional training process in an Opera Garden. The observation of several teaching sessions reveals detailed vocal exercises that have been commonly used in training. There is a brief discussion on some questionable training strategies used for developing immature voices. Facing the challenge of attracting young generations to this traditional art form, the Chinese Ministry of Education recently announced a pilot program of teaching Peking Opera in elementary and high schools. Although the public holds diverse opinions on this nationwide project, there is a growing respect for this novel educational approach. It is hoped that Peking Opera will continue to attract thousands of fans with its unique artistic style both in China and worldwide.

Graduate & Professional Student Research Forum
Science, Engineering and Health Sciences
Poster Session A
UNLV Student Union Ballroom

Posters 1 – 5: Judging at 9:00 – 10:00am

1. Lindsey Clark, Department of Geoscience
2. Lauren Michelle Fossile, Department of Mechanical Engineering
3. Hongbin Jin, School of Nursing
4. Romesh Khaddar and Naveen Veermisti, Department of Electrical and Computer Engineering
5. Jeffrey McClellan, Department of Kinesiology

Posters 6 – 10: Judging at 10:00 – 11:00am

6. Teresa Mika, School of Life Sciences
7. Alexis Moore, School of Life Sciences
8. Brittany Myers, Department of Geoscience
9. Lauren Reynolds, School of Life Sciences
10. Atul Sancheti, Department of Electrical and Computer Engineering

Posters 11 – 14: Judging at 11:00am – noon

11. Hanaa Shaheen, Department of Kinesiology
12. Elizabeth Tanis, Department of Geoscience
13. Valerie Tu, Department of Geoscience
14. Timothy Waters, Department of Physics and Astronomy

1. Ore Characterization and Paragenesis of the Cortez Hills Carlin-type Gold Deposit, Nevada, USA

Lindsey Clark, Jean Cline and Adam Simon, Department of Geoscience

The Cortez Hills Carlin-type gold deposit (CTGD), located on the Battle Mountain-Eureka trend of Northern NV, is hosted in a conical shaped polyolithic breccia whose central axis strikes parallel to the Voodoo fault. Due to the high porosity and supergene enrichment of the Cortez Hills Breccia Zone (CHBZ), Au grades are locally in excess of an ounce per ton. Gold mineralization within the refractory ore at Cortez Hills shares many characteristics with other well studied CTGDs. However, new observations during this study have recognized 1) fragmented realgar in a few samples that are rimmed by gold-bearing pyrite, 2) a Hg- and Tl-rich late-ore stage characterized by uncommon/newly recognized minerals, and 3) textural relationships show that ore-stage mineralization precipitated after the major brecciation event.

The data collected indicate that the CHBZ refractory ore exhibits the following paragenetic relationships. 1) Diagenetic pyrite was deposited in passive margin carbonate rocks. 2) A pre-ore suite of minerals apparently associated with low-grade contact metamorphism includes sphalerite, chalcopyrite, and tremolite. 3) Ore stage alteration minerals include illite, ore-stage jasperoid, and Au- and trace element-rich iron sulfides. 4) Hg- and Tl-rich minerals including Aktashite ($\text{Cu}_6\text{Hg}_3\text{As}_4\text{S}_{12}$) and Routhierite/Christite (TiHgAsS_3) precipitated during a late-ore stage directly following the precipitation of Au-bearing iron sulfides. 5) Late- to post-ore stage minerals include realgar and calcite and are associated with cooling and collapse of the hydrothermal system.

2. Energy Purveyors and Climate Change in Nevada: Knowledge, Needs and Perspectives

Lauren Michelle Fossile and William J Smith, Jr., Department of Mechanical Engineering

Due to a large volume of greenhouse gas emissions coming from the generation of electricity, energy providers are in a unique position to work towards climate change mitigation. A multi-method survey was created for our NSF-funded study in order to discover the knowledge-base, needs and perspectives of energy purveyors in Nevada. There are five major sections to the survey. The first section focuses mainly on categorizing the type of organization being surveyed (i.e. size, public or private). The second focuses on organizational plans regarding mitigation and adaptation practices. The third section contains questions focusing on the type of data the organization uses in its planning, and the types of modeling utilized. The fourth section focuses on the beliefs of the purveyors (i.e. regarding the origin of climate change). The final section contains questions focusing on demographic information, so that the data collected in the survey can more easily be compared to other stakeholder surveys. Organizations were given the choice of taking the survey over the phone, online, or in a hard copy version mailed to them with a prepaid return envelope enclosed. The results are intended to inform researchers, purveyors, and those in the political arena.

NSF EPSCoR Grant # EPS0814372.

3. Characteristics of Leukocyte Infiltration in Murine Soleus Muscle after Closed Crush Injury

Hongbin Jin and Barbara St. Pierre Schneider, School of Nursing

The study objectives were to (a) describe the characteristics of leukocyte infiltration using a rodent muscle crush injury model, and (b) determine whether sex and time affect these characteristics. Three antibodies, anti-CD68, 7/4, and F4/80, were used to detect leukocyte infiltration in crush-injured soleus muscle. The number of antibody-positive myofibers was manually quantified with the aid of a computer image analysis procedure. Antibody-positive myofibers were categorized as: EDGE, INSIDE, and EDGE/INSIDE. Sex and postinjury time points (24 and 48 hours) were also analyzed. There was a significant difference in the number of antibody-positive myofibers among the three antibodies. Independent of sex and time, more CD68⁺ myofibers were identified than F4/80⁺ myofibers ($p<0.01$). The proportion of the three infiltration patterns varied among the three antibodies. For all antibodies, the percentage of EDGE fibers was higher than INSIDE and EDGE/INSIDE fibers. However, only the number of 7/4⁺ EDGE fibers was significantly different than the other fiber patterns ($p=0.012$). No sex and temporal effects were detected. Conclusions are (a) CD68⁺ cells are more likely to infiltrate myofibers than F4/80⁺ cells, and (b) 7/4⁺ cells are more likely to be distributed at the myofibers' edge rather than deep inside the myofibers.

4. Architecture for an Interactive Motion Based Traffic Simulation Environment

Romesh Khaddar, Naveen Veermisti, Alexander Paz and Pushkin Kachroo, Department of Electrical and Computer Engineering

This study proposes an architecture for an interactive motion-based traffic simulation environment. In order to enhance modeling realism involving actual human beings, the proposed architecture integrates multiple types of simulation, including: (i) motion-based driving simulation (ii) pedestrian simulation (iii) motorcycling and bicycling simulation and (iv) traffic flow simulation. The architecture has been designed to enable the simulation of the entire network; as a result, the actual driver, pedestrian, and bike rider can navigate anywhere in the system. In addition, the background traffic interacts with the actual human beings. This is accomplished by using a hybrid meso-microscopic traffic flow simulation modeling approach. The mesoscopic traffic flow simulation model loads the results of a user equilibrium traffic assignment solution and propagates the corresponding traffic through the entire system. The microscopic traffic flow simulation model provides background traffic around the vicinities where actual human beings are navigating the system. The two traffic flow simulation models interact continuously to update system conditions based on the interactions between actual humans and the fully simulated entities. Implementation efforts are currently in progress and some preliminary tests of individual components have been conducted. The implementation of the proposed architecture faces significant challenges ranging from multi-platform and multi-language integration to multi-event communication and coordination.

5. Comparing Dual-Task Performance among Children with Cerebral Palsy Following a Novel Physical Therapy Intervention

Jeffrey McClellan, Janet Dufek, Robbin Hickman, Andrea Blahovec, Andrea Kuiken, Jillian Mears and Heather Riggins, Department of Kinesiology

Children with Cerebral Palsy (CP) have increased postural sway assumed to worsen under dual-task conditions, demonstrating gait characteristics similar to Parkinson's patients whom have documented improvements following large amplitude movement therapy. Our purposes were to (1) pilot use of pairing an instrumented tray and electronic walkway to quantify postural sway, and (2) test the concept of adapting large amplitude, whole body movement therapy on children with CP. After receiving institutionally approved informed consent from a parent and child assent, five children diagnosed with CP (7.0 ± 1.0 yrs; 125.7 ± 7.3 cm; 26.0 ± 5.1 kg) walked twice across an electronic walkway (CIR Systems, Inc.; 120hz) while carrying a tray instrumented with an inclinometer (60hz), before and after a 15 minute large amplitude, whole body movement intervention. Two dependent variables, anteroposterior (AP) and mediolateral (ML) sway velocity, were extracted bilaterally during single support for all steps and compared pre-post intervention using a single-subject Model Statistic statistical procedure ($\alpha = 0.05$). Data were extracted for four subjects, with results for ML showing a non-significant post-intervention reduction in sway velocity for three subjects (S1, S2 and S3). Results for AP were statistically significant for S2 who showed improvement, reducing sway velocity post-intervention (60.2 ± 16.3 deg/s pre vs. 42.7 ± 15.6 deg/s post), and S3 who exhibited faster AP sway velocity (108.7 ± 19.9 deg/s pre vs. 145.1 ± 35.5 deg/s post). The effectiveness of large amplitude exercise remains unclear, but feasibility of quantifying dual-task activity was demonstrated. It is important to continue to explore the effectiveness of a clinical dose of large-amplitude movement interventions for children with CP.

6. Cardiac Performance across Temperature Extremes in the Grass Shrimp, *Palaemonetes pugio*

Teresa Mika and Carl Reiber, School of Life Sciences

Metabolic rate increases in poikilothermic animals exposed to increased temperature. The systems responsible for oxygen uptake and distribution must keep pace with this increased rate if these animals are to maintain aerobic metabolism. Analyses were performed on grass shrimp, *Palaemonetes pugio*, acclimated to 20° C exposed to a range of temperatures (5°- 40° C) in both normoxic and hyperoxic environments to determine response of the oxygen delivery system to this increased demand. Animals placed in a hyperoxic environment had a higher CTmax than animals in a normoxic environment, suggesting a physical limitation in oxygen delivery. Previous work has indicated a limitation in diastolic filling time may be a main contributor to this limitation in oxygen delivery. Current work investigates the time in cardiac cycle across the range of temperatures to determine if this previously noted relationship is maintained across a wider range of heart rates. Pressure-area loops are also generated to provide an estimate of cardiac work and myocardial oxygen consumption in both normoxic and hyperoxic conditions.

7. A New 3D System for Measuring Burrowing Biomechanics

Alexis Moore, Clinton J Barnes and David V. Lee, School of Life Sciences

Subterranean digging behaviors provide opportunities for protection, access to prey, and predator avoidance to a diverse array of vertebrates, yet studies of the biomechanics of burrowing have been limited by the technical challenges of measuring kinetics and kinematics of animals moving within a substrate. Previous studies of burrowing typically use 2D X-ray video and 1D force measurements, however, empirical observations show that burrowing mechanics are not restricted to a single axis or plane. Here we present a new system for simultaneously measuring 3D kinematics and kinetics of burrowing animals by combining 3D X-ray motion analysis with an innovative tunnel-tube for measuring 3D burrowing reaction force together with outward pressure on the tunnel walls. The tunnel-tube is a rigid acrylic cylinder supported at each end by six-axis load cells for measuring net reaction forces and the lengthwise center of pressure during burrowing. To measure the outward pressure on the walls of the tunnel, a nitrogen-pressurized inner-tube separates the rigid outer wall of the tunnel-tube from the substrate filled interior. A pressure transducer in this nitrogen-filled space records the outward pressure due to soil compaction against the rubber inner-tube. Separate vertical and horizontal forces during burrowing strokes may also be measured independently using flex-sensitive resistors arranged in lengthwise bands along the length of the inner-tube. Measured simultaneously, 3D X-ray kinematics 3D reaction force and dynamic pressure data will provide a more complete view of burrowing biomechanics in a diversity of vertebrates.

8. The Impacts of Creosote Bush (*Larrea tridentata*) and Biological Soil Crust on Calcium Distribution in Arid Soils of the Mojave Desert, Southern Nevada

Brittany Myers, Steven McDonnell and Libby Hausrath, Department of Geoscience

Ca is an important nutrient that plays a role in membrane stability and cell repair in plant life. Previous studies have shown depletion of Ca beneath biological soil crusts (BSCs) in desert soils. This study examines the impact of creosote bush (*Larrea tridentata*) and biological soil crust on calcium cycling and distribution in desert soils in order to explore the use of Ca as a biosignature. Samples of creosote bush, biological soil crust and eolian dust were taken at each of the two lithologically distinct field areas in the Mojave Desert. The first site is located in Eldorado Valley, NV, a soil formed on a young (800-1200 years) alluvial fan deposit; the second site is located on a late Holocene-aged deposit of the Lucy Gray Mountain Range in Ivanpah Valley, NV, in which the alluvium is made up of granitic bedrock material. Both sites are dominated by creosote bush and contain biological soil crust. Soil and dust samples were subjected to three sequential extractions of BaCl₂, acetic acid, and HNO₃; creosote bush was digested with HNO₃. All solutions will be analyzed for Ca content. Initial characterization shows that soils in the rhizosphere tend to have more neutral pH values and higher electrical conductivity values. Results for Ca content show that highest amounts of available Ca and lowest amounts of Ca as CaCO₃ are found in the rhizosphere. Future isotopic analyses will help to further understand the effect of the vegetation on the distribution of Ca in desert soils.

9. Ecdysone Signaling in Starvation Resistant *Drosophila*

Lauren Reynolds and Allen Gibbs, School of Life Sciences

We selected for adult starvation resistance in replicated outbred populations of *Drosophila melanogaster*. These populations accumulate greater lipid stores as larvae that they can then use to survive adult starvation. Lipids are accumulated during the 3rd instar larval feeding period, which is ~24 hr longer in starvation-selected populations than controls; the rate of lipid accumulation during larval feeding is the same between starvation-selected populations and controls. To understand how the developmental delay is achieved we studied gene expression during the 3rd instar. Genes associated with the ecdysone pulse that results in puparium formation had delayed expression. We partially rescued delayed larval development by feeding 20-hydroxyecdysone (20E) to 3rd instar larvae, further suggesting a change in the timing of the ecdysone titer. We conclude that selection for adult starvation resistance has resulted in physiological changes in larvae that are mediated by ecdysone signaling.

10. Comparative Study of Various Data Collection Software Used for Seat-belt Observational Surveys

Atul Sancheti, Department of Electrical and Computer Engineering

According to the National Occupant Protection Use Survey (NOPUS), the seat-belt use in United States has increased from 84 percent in 2009 to 85 percent in 2010. Moreover, from 2005-2009, use of seat-belts have saved the lives of 72,000 occupants. Even then, the number of occupants who died in crashes where safety restraints were not used is 75,625. This gives a reason to study the seat-belt use throughout the U.S. and to be able to develop a program to increase it over the years. To calculate the seat-belt usage throughout the U.S., statewide seat-belt surveys are conducted in individual states which collect various parameters such as gender, age, ethnicity, vehicle type and state of registration of the front seat occupants. Data collection is performed by trained observers who use the method of direct observation and records the data through paper and pen or recently on Personal Digital Assistants (PDAs). Efficiency and accuracy is the backbone of such surveys and hence it is necessary that the method being used for that should be faster as well as more accurate for data collection. This paper documents the results of a comparative study conducted in the Transportation Research Center (TRC), University of Nevada Las Vegas (UNLV) among five different data collection templates. Results were analyzed on the basis of speed and accuracy, i.e. the data being collected has a similar kind of a pattern compared to the data obtained from the other designs which is a very important factor for the selection of any design.

11. Effect of Acute Exercise on Lipoproteins Measured by Nuclear Magnetic Resonance (NMR) in Healthy Men

Hanaa Shaheen and Antonio Santo, Department of Kinesiology

Cardiovascular disease (CVD) represents a major cause of death in the United States. Abnormal levels of blood lipids and physical inactivity are considered major risk factors to develop CVD. The conventional lipid profile is used to directly measure the concentrations of blood lipids and lipoproteins. But, recently it was found that the distribution of blood lipids among lipoprotein particles is an important factor for that assessment. This information is provided by an innovative technique, nuclear magnetic resonance (NMR) that is used to quantify the numbers and sizes of lipoprotein particles. Exercise and increased physical activity has shown to produce favorable effects on blood lipids and lipoproteins and consequently reduce CVD risk. To understand this effect, the acute effect of an exercise session on these parameters needs to be understood. So, the purpose of this study is to examine the effect of a 60-minute bout of dynamic exercise on lipoprotein particle number and size as measured by NMR, and compare it with the conventional lipid profile.

Selected subjects will be 10 active healthy men. After assessment of body composition and aerobic fitness, subjects will be asked to run for 60 minutes at 70% of their aerobic fitness on a treadmill. Blood samples will be drawn immediately before, and 5 minutes and 24 hours after exercise. Samples will be sent to LipoScience, Inc. for the NMR analysis. Also, the conventional lipid profile will be performed to compare it with the NMR analysis and determine if the NMR analysis is more sensitive to changes in lipoproteins.

12. Behavior of Niobium and Yttrium in Aqueous Fluid At High Pressures and Temperatures

Elizabeth Tanis, Adam Simon, O. Tschauner, P. Chow, Y. Xiao, J. Hanchar, and M. Frank, Department of Geoscience

Constraining thermodynamically the mass transfer of the REE (rare earth-) and HFSE (high field strength) elements from subducted oceanic crust and metasediments to the mantle wedge is fundamental towards interpreting trace element processes in subduction zones and the plumbing system of arc volcanoes. HFSE-bearing Rutile has been proposed as an important host for HFSEs (Nb, Ta, Zr, Hf) in eclogites, where rutile is hypothesized to retain these HFSE in slab material upon partial melting and/or fluid release, thereby causing the observed characteristic depletion of HFSE in arc magmas. Other characteristics of arc volcanic rocks are a distinct depletion in heavy REEs and enrichment in large lithophile elements all this relative to mid-ocean ridge basalts.

Here we use an in situ synchrotron x-ray fluorescence (XRF) technique that can directly measure the concentration of Nb and Y in aqueous fluid. The solid samples are rutile as the host of Nb, and xenotime as the host of Y, which we examine as a proxy for the heavy REEs. Our study focuses on the effects of P, T in combination with aqueous fluid salinity, on the partitioning of Nb between rutile and Y in xenotime. A hydrothermal diamond anvil cell is used to induce pressure and temperature in the range of 1 to 5 GPa and 300-500 C. We will present and discuss the new experimental partitioning results, which have important implications for the ability of aqueous fluid to scavenge and transport the HFSE and REE in arc environments.

13. Dissolution Rates of Amorphous Al- and Fe-Phosphates and their Relevance to Mars

Valerie Tu and Elisabeth Hausrath, Department of Geoscience

Phosphorous is a vital element for life on Earth, found in DNA, RNA, and ATP. If life ever existed on Mars, it would therefore likely have required phosphate. Unlike other nutrients such as C, S, O, H, and N, P does not have a gaseous phase, and phosphate availability in the environment is therefore directly related to mineral dissolution. Although phosphates occur in a variety of forms, amorphous phosphates are a likely form to precipitate from solution during weathering of primary minerals. Therefore, amorphous phosphates may be important in controlling phosphorus availability in soils on Earth and on Mars. Despite this importance, however, few dissolution rates have been measured for amorphous Al- and Fe- phosphates. Measuring dissolution rates of amorphous Al- and Fe- will therefore constrain the availability of phosphorous with implications for habitability of martian soils.

14. Astrophysical Winds

Timothy Waters and Daniel Proga, Department of Physics and Astronomy

Spectral observations of objects as diverse as solar-type stars and active galaxies indicate the presence of outflows emanating from these systems. Outflows from stars have been dubbed stellar winds, while those from galaxies hosting active galactic nuclei are referred to as disk winds. Smaller scale compact objects such as stellar mass black holes and white dwarfs are also observed to possess accretion disks whose spectra reveal accompanying disk winds, and there are active attempts to model all of these systems by invoking one or more of several universal driving mechanisms derived from thermal pressure, radiation, and magnetic forces. Winds driven by thermal expansion alone are the simplest among these; an intuitive physical analogy can be drawn with supersonic flow through a rocket nozzle. I will present an analytic solution that can be used to better understand and model both stellar and disk winds.

Graduate & Professional Student Research Forum
Social Science
Poster Session A
UNLV Student Union Room Ballroom

Posters 15 – 19: Judging at 9:00 – 10:00am

- 15. Ermias Abraham, School of Environmental and Public Affairs
- 16. Steven Baker and Christopher Dear, School of Environmental and Public Affairs
- 17. Salley Barney, Department of Psychology
- 18. Heidi Batiste and Salvador Mora, School of Environmental and Public Affairs
- 19. Donnell Bayot and Danillo Chavarria, School of Environmental and Public Affairs

Posters 20 – 23: Judging at 10:00 – 11:00am

- 20. Abby Beck, School of Environmental and Public Affairs
- 21. Arnold Bell and Elias Samoran, School of Environmental and Public Affairs
- 22. Kimberly Claudat, Department of Psychology
- 23. Shawn Saxton and Minerva Navarrette, School of Environmental and Public Affairs

Posters 24 – 26: Judging at 11:00 – 11:30am

- 24. Cheryl Coleman and Marilyn Delmont, School of Environmental and Public Affairs
- 25. Sebern Coleman and LaShonda Moore, School of Environmental and Public Affairs
- 26. John Crandall, Department of Anthropology

15. What Makes Foreign NGOs in Developing Countries Effective? A Dissertation Research Conducted on the Particular Experience of Foreign NGOs in Ethiopia
Ermias Abraham, School of Environmental and Public Affairs

Since the 1970s developing countries have experienced a massive increase of foreign and local Non Governmental Organizations (NGOs) in their territories. The multiplication of these NGOs seems to be the result of the activities of both foreign donors and states of developing countries. Foreign donors considered NGOs as efficient, flexible or adaptive to the needs of the community and more trustworthy than government agencies in implementing development projects. Foreign donors also believe that the proliferation of local and foreign NGOs in developing countries will stimulate the growth of political democracy and trade liberalization. Developing countries allowed the proliferation of NGOs in order to tap the resources that such NGOs can bring in to their territories and to secure legitimacy in the face of the international community. Various scholars discussed the works of foreign NGOs, their proliferation and the challenges they face in implementing their projects in developing countries. But the question of effectiveness and what factors cause foreign NGOs to become consistently effective in developing countries is a subject that has not been studied in a comprehensive and empirical fashion. The purpose of this research is to help fill this gap and identify the reasons for foreign NGOs effectiveness. Using interviews and a review of primary and secondary documents, this research discovered what I am labeling a Multilevel Collaborative Model (MCM). The model allows seeing two different levels of NGO effectiveness--management effectiveness and project effectiveness. By employing this model the research concludes that foreign NGOs in Ethiopia can be effective only when there is a balanced collaboration between themselves and the three main stakeholders--donors, developing countries states and participating communities.

16. Keeping Up with the Demand for Skilled Workers: An Analysis of the Workforce Systems in Australia

Steven Baker, Christopher Dear and Cecilia Maldonado-Daniels, School of Environmental and Public Affairs

Industrialized countries are competing for skilled workers who possess the advanced training and experience needed to enter the workforce (Mahroum, 2002). However, the demand for these skills is growing faster than the pool of available workers (Chennels and Van Reenen, 1999).

The imbalance of supply and demand has created a workforce with transient characteristics resulting in the migration of talent across borders to regions where their skills are currently in demand and wages highest (Mahroum, 2002).

Gray and Paryono's (2004) Conceptual Model of Workforce Education and Development will be used to study the current workforce education practices and to identify the factors impacting producing qualified skilled workers. The study will analyze the workforce development system for skilled workers in Australia and the country's policy on migration of foreign workers (Khoo, McDonald, Voigt-Graf, and Hugo 2007).

17. Using Feedback to Guide Behavior: Impairments on the WCST Relates to Psychosis

Salley Barney, Diane Umuhoza, Gregory Strauss, Danielle Knatz-Bello and Daniel Allen,
Department of Psychology

Schizophrenia (SZ) and bipolar disorder (BP) share a number of common features. For example, dopamine has been found to be dysregulated in both disorders. Furthermore, dopamine plays a role in reward learning, and individuals with SZ exhibit deficits in this area. The current study sought to extend these findings to BP with and without psychotic features, with the hypothesis that participants with psychotic symptoms would exhibit more severe deficits in reward learning.

The sample included 146 individuals with BP and a history of psychosis (BP+), BP and no history of psychosis (BP-), SZ, or normal controls (NC). Participants were administered the Wisconsin Card Sorting Test (WCST). Analyses focused on responses to the first four WCST cards. Mixed-model ANOVA that included one within-subjects factor (WCST trials 1-4) and one between-subjects factor (group) examined group differences in learning across trials. Post hoc analyses examined trial-by-trial differences among the groups.

Results indicated significant main effects for group and for WCST trial, as well as a significant group by trial interaction effect. Post hoc comparisons indicated significant between group differences on WCST trials 2, 3, and 4. Examination of the raw scores indicated the expected pattern of performance was present among the groups (NC>BP->BP+>SZ).

Results demonstrate an incremental impairment in SZ and BP patients ability to use feedback to guide behavior, such that SZ exhibit the greatest impairment, followed by BP+ and BP-. Determining whether these deficits in bipolar disorder are due to dopamine dysregulations, as has been suggested in schizophrenia, requires further investigation.

18. An Analysis of the Efficiency of the Mexican Workforce Education and Development System in Meeting the Needs of the Country's Strategic Global Initiatives

Heidi Batiste and Salvador Mora, School of Environmental and Public Affairs

In an era where globalization is promoted through information and technology, nations throughout the world are positioning themselves to compete in global markets by modifying existing institutional and regulatory structures (Organisation for Economic Co-operation and Development [OECD], 2012). According to the World Economic Forum (2011), while Mexico is a rising competitor, the country's educational programs continue to trail emerging markets and other developing economies.

This study analyzes the Workforce Education and Development (WFED) systems in Mexico, specifically examining their effectiveness in producing an efficient labor force using the Conceptual Model of Workforce Education & Development (Gray and Paryono, 2004). The analysis will begin with an exploration of influencing factors including government climate, physical environment, human and social capital and economic status. Next, the study will identify the prominent features of the WFED systems of Mexico, and evaluate them against those factors essential to producing a workforce conducive to economic improvement.

19. Revitalizing the Workforce: Analysis of Argentina's Post Economic Crisis Workforce Development Programs

Donnell Bayot and Danillo Chavarria, School of Environmental and Public Affairs

Argentina, an economic powerhouse in South America, posted a 7.2% unemployment rate in 2011, down from 21.5% in May of 2002, this figure is amongst the lowest in Argentina since 1993 (Instituto Nacional de Estadística, 2012). During these last ten years Argentina has experienced strong economic growth and has invested in a myriad of social economic protection initiatives that have been a key factor in Argentina's welfare (Bertranou and Vezza, 2010). There are economists who believe that Argentina will eventually be unable to maintain this strong rate of economic growth given the unstable economic outlook worldwide.

This study seeks to evaluate the workforce systems utilized to review the programs and initiatives Argentina has taken in the last ten years to battle unemployment. The Gray and Paryono (2004) Conceptual Model of Workforce Education and Development System will be used as a basis for analysis. The model will review the influencing factors of government climate, physical environment, human capital, social capital, and economic status that influence the process of workforce education on the civilian labor force.

20. Understanding Sustainability and Quality of Life: A System Dynamics Approach

Abby Beck, School of Environmental and Public Affairs

For an urban area to be sustainable, its resources cannot be depleted faster than they can replenish. If an urban area is to provide a high quality of life, it must offer and maintain an amenity package that satisfies its resident's preferences. Past studies on these topics all have a common thread: sustainability and QOL both pertain to people's relationship to capital. Capital is something that can accumulate and add value to a person or society. If sustainability and QOL are a function of people's relationship with capital, how they use it, deplete it, replenish it and transform it into something else is important to know.

The most common forms of capital affecting urban systems are economic, natural, human and social capital. Previous models that incorporate two or three of these stocks helped inform the structure of this model. However, no model includes the dynamics of all four forms of capital. In this study, I use system dynamics modeling to illustrate how these forms of capital interact with a city's population to create in migration and out migration behavior based on the attractiveness of its capital stocks. I then provide an analysis of hypothetical urban conditions and how the simulation could be used in a public setting to help the public better understand what drives sustainability and quality of life.

21. An Analysis of the Workforce System in Japan: The Impact of Natural Disasters on Workforce Priorities: Can the Demand be Met?

Arnold Bell and Elias Samoran, School of Environmental and Public Affairs

In this study, an analysis will be conducted to examine the efficiency of the workforce systems in Japan to prepare a labor force for the effects created by natural disasters, as Japan has been considered a top-tier contributor of global services throughout the world. According to Economy Watch (2010), Japan is ranked second for foreign reserves and Gross Domestic Product respectively in the International Monetary Fund country rankings. Current workforce systems will be evaluated using Gray and Paryono's (2004) conceptual model of workforce education and development to determine its efficiency in preparing a labor force that can maintain their global dominance.

22. The Influence of Objectification on Body Image in Sexual Activities: An Examination in an Ethnically Diverse Sample of College-Age Women

Kimberly Claudat and Cortney S. Warren, Department of Psychology

Although the sexual objectification of women is commonplace in mainstream, U.S. culture and media, little research has examined the relationships between objectified body consciousness, body image during sexual activities, and body-esteem in women of diverse ethnic groups. This study investigated the relationships between body surveillance, body shame, contextual body image during sexual activity, and body esteem in American female college students of European, African, Asian, and Hispanic/Latina descent ($N = 1174$). Responses to self-report questionnaires indicated that body surveillance and body shame were significantly positively correlated with contextual body concern during sexual activities for women of all ethnic groups. A MANOVA indicated that European American women reported significantly higher mean levels of body surveillance and body shame than other ethnic groups. Furthermore, African American women generally reported the least objectified body consciousness and highest body-esteem. Although surveillance- and shame-based body consciousness positively predicted body image disturbance during sexual activities for women of all ethnic groups, weight- and appearance-based body-esteem moderated these relationships such that they were stronger for women with lower body-esteem than for those with higher body-esteem. These findings suggest a detrimental relationship between objectified body consciousness and contextual body concern during sexual activities independent of ethnicity, particularly for women with lower body-esteem.

**23. Workforce Development Systems in the United Kingdom and the United States:
A Comparative Analysis of How individuals Are Prepared for Work**
Shawn Claxton and Minerva Navarrette, School of Environmental and Public Affairs

This study explores and analyzes the workforce development systems in the United Kingdom and the United States. The goal of our study is to compare and analyze the different approaches to developing the workforce and preparing individuals for the labor market by using Gray & Paryono's (2004) conceptual model of workforce education and development.

24. Training, Capacity Building and Skill Development: An Analysis of India's Workforce Development Initiatives Toward Globalization

Cheryl Coleman and Marilyn Delmont, School of Environmental and Public Affairs

In the developing nation of India where globalization, rapid technological changes, and global competition on the Indian economy are significant, lawmakers are turning to workforce development initiatives in order to sustain the nation's growth and elevate its citizens from poverty (Asian Development Bank Institute, 2008). Workforce development is viewed by Indian lawmakers as critical to creating a more competitive and viable workforce in the 21st century global labor market, specifically surrounding issues of training, capacity building and skill development. This study examines workforce development activities performed in India relative to these factors in light of globalization and the growing need for educated and skilled laborers across the globe. Using Gray and Paryono's (2004) Conceptual Model of Workforce Education and Development, the effectiveness and efficiency of India's workforce system will be evaluated.

25. Building a Global Economy by Investing in the Disadvantaged: An Analysis of Black Economic Empowerment in South Africa

Sebern Coleman and LaShonda Moore, School of Environmental and Public Affairs

For nearly fifty years, the South African National Party and its apartheid legislation used racial segregation to control access to economic power. Whites were afforded wealth opportunities while Blacks were economically marginalized into an impoverished underclass (dti, 2009). The apartheid segregated black South Africans into education systems ill-equipped to teach math, science, and technical skills. It prohibited Blacks from entrepreneurship and systematically denied access to the competencies required for high-salaried occupations.

Although apartheid ended in 1994, its relics can still be detected today. Inequalities in the access to education, ownership of assets, and the distribution of wealth among Blacks persist (McGrath, Akoojee 2007). The long-standing impact of apartheid is a nation whose majority population lacks the advanced skills necessary to generate wealth and participate in the economy. In 2003, Parliament acknowledged the threat these inequalities had on the stability and prosperity of South Africa's economy and responded by composing the Black Economic Empowerment (BEE) Act- a program purposed to advance South Africa's economy through the meaningful economic participation of Blacks (dti, 2009).

South Africa's global economic competitiveness is measured by the aggregate skills of its workforce (HRD-SA, 2009). Therefore, this study analyzes BEE as a human resource development strategy to build the nation's economy. A thorough assessment of South Africa's workforce development system as a function of BEE is illustrated using Gray and Paryono's (2004) Model of Workforce Development. The purpose of this investigation is to conduct a comprehensive analysis of South Africa's workforce development initiatives and examine its efficiency in meeting BEE's goals.

26. Reconstructing Taphonomy at La Cueva de los Muertos Chiquitos

John J. Crandall, Debra L. Martin and Jennifer L. Thompson, Department of Anthropology

The La Cueva de los Muertos Chiquitos site (AD 600-1430) is located just north of Durango, Mexico. A reanalysis of the human remains from this site, excavated in the 1950s by Sheilagh and Richard Brooks, has yielded important new information. This cave site contains at least 23 burials of infants and children ($n > 17$, most being 1-2 years of age) and at least three adult burials all associated with the Gabriel San Loma Cultural Phase. Using long bone lengths and radiographic analysis of dental development, age approximations for the subadults were obtained. All of the children exhibit active cases of non-specific periosteal reactions on the cranium. Sixty percent of the children also exhibit periosteal reactions on the long bones. In addition, porotic hyperostosis ($n = 7$) and cribra orbitalia ($n = 5$) are present. A number of cases of possible juvenile scurvy ($n = 5$) were also identified.

Taphonomic indicators of the mortuary context revealed evidence of burning and intentional sequenced internment suggestive of ritualized burial treatment. Results from the analysis of coprolites and quids found in the cave (Reinhard, et al. 1988) provide additional information on diet and health. Vegetative data noting the presence of botanicals used for drug production at the site (Foster 1984), suggests that an unusual occurrence such as ritual sacrifice likely precipitated the deaths of up to 23 infants and children. Large quantities of corn and beans may have also been a part of the ritual offering.

Graduate & Professional Student Research Forum
Social Science
Poster Session B
UNLV Student Union Ballroom

Posters 27 – 31: Judging at 9:00 – 10:00am

- 27. Lauren Falvey and Tatianna Menocal, Department of Anthropology
- 28. Ashley Hemmers and Ricardo Villalobos, School of Environmental and Public Affairs
- 29. Chad Hensley and Leon Jackson, School of Environmental and Public Affairs
- 30. Joshua Juvrud, Department of Psychology
- 31. Johanah Kang, Department of Psychology

Posters 32 – 36: Judging at 10:00 – 11:00am

- 32. Andrea Kayl, Department of Psychology
- 33. Kathleen Larson, Department of Psychology
- 34. Angela Lewis, Department of Anthropology
- 35. Alex Moore, Department of Psychology
- 36. Patricia Mynster, School of Environmental and Public Affairs

Posters 37 – 39: Judging at 11:00 – 11:30am

- 37. Brian Neau, School of Social Work
- 38. Rebecca Nemecek, Marriage and Family Counseling
- 39. Christina Nicholas, Department of Sociology

27. Fossils and their role in Mimbres Mogollon Ritual Behavior at a Late Pithouse Period Village

Lauren Falvey and Tatianna Menocal, Department of Anthropology

Excavations at the Harris Site in southwestern New Mexico have recovered many specimens of fossil brachiopods, bryozoans, and crinoids from a variety of archaeological contexts. Fossils are not local to the site and must have been procured from outside the Mimbres Valley. While many of these fossils were unmodified, one was shaped into an ornament and several pieces of fossiliferous limestone were selected as raw material for tools. These artifacts are discussed with regard to their association with ritual and domestic activities and their significance to the inhabitants of the Harris Site.

28. An Analysis of the Canadian Workforce System

Ashley Hemmers, Ricardo Villalobos and Dr. Cecilia Maldonado-Daniels, School of Environmental and Public Affairs

Workforce development can be described as the coordination of public and private sector policies and programs that provides individuals with the opportunity for a sustainable livelihood and helps organizations achieve exemplary goals, consistent with the societal context (Jacobs & Hawley, 2009). In 2010, at US \$1.57 trillion, Canada was the world's ninth largest economy as measured by Gross Domestic Product at market exchange rates (International Monetary Fund, 2011). Canada's economy is larger than Russia, India, or South Korea and rivals leading destinations of foreign direct investments (International Monetary Fund, 2011). With its reputation for a high quality of life, Canada spouts a multicultural and multilingual labor force for globally engaged companies attracting the best and brightest from every corner of the globe (investincanada.gc.ca, 2012). Canada's economic growth has outperformed the rest of the G-7 countries from 2001-2010. Having what is considered the best educational system in the G-7 and No.5 in the world; this study provides an analysis of the Canadian workforce system utilizing Gray and Paryono's (2004) conceptual model of workforce and education development.

29. Analysis of the Brazilian Tertiary Education System and Its Effect on the Workforce

Chad Hensley and Leon Jackson, School of Environmental and Public Affairs

Brazil struggles with a low tertiary enrollment rate which is currently at 16.5% (Tertiary Enrollment, 2011). At the same time, Brazil is emerging as an economic powerhouse as evidenced by the inclusion of Brazil as one of the BRIC countries. The BRIC countries are Brazil, Russia, India and China, who by 2050, are predicted to have economies larger than that of the G-6 consisting of the United States, Germany, Japan, United Kingdom, France and Italy (Dreaming with BRICS, 2003). Due to the lack of qualified workers, Brazil is seeing an increase in immigration of qualified foreign labor in technology-intensive professions (Lulko, 2011). To combat this problem, a National Education Plan was implemented with one of its goals to increase tertiary enrollment to 30% (Ministerio da Educacao, 2002, p.14). This study will analyze the workforce systems in Brazil using Gray and Paryonon's (2004) Conceptual Model of Workforce Education and Development to determine its effectiveness in meeting the goals of the National Education Plan.

30. Characteristics and Health Behaviors in Adults

Joshua Juvrud, Jennifer Rennels and Andrea Kayl, Department of Psychology

To determine how self-perceptions of facial appearance and sex-typed attitudes and behaviors are related to health, male and female adults provided self-ratings for each of these measures. Men's self-rated facial masculinity positively correlated with mental health, whereas facial femininity negatively correlated with mental health. For women, self-rated facial masculinity negatively correlated with their physical health and facial femininity negatively correlated with their sex-typed attitudes. Men's self-rated facial masculinity positive correlated with their engagement in masculine activities, whereas women's self-rated facial femininity positively correlated with their self-reported masculine traits. Interestingly, men's self-reported feminine traits negatively correlated with both their mental and physical health. These findings show how perceptions of one's own facial appearance and sex-typed attitudes and behaviors are related and how those perceptions relate to both physical and mental health outcomes.

31. The Inner Experience of a Woman with Bipolar Disorder

Johanah Kang, Christopher Heavey and Russell Hurlbut, Department of Psychology

"Kathy" suffered from bipolar disorder. We used descriptive experience sampling to investigate her inner experience. On each of ten sampling days, she carried a beeper with her as she went about her typical daily activities, noting what was ongoing in her inner experience when the random beep sounded. After she collected the day's six moments of experience, we met for about an hour, working to apprehend her inner experience at each moment in high fidelity; the same procedure was followed on subsequent sampling days. During our first several days of sampling with Kathy, she struggled to describe her inner experience; over time she became progressively better. Why? Although it is possible that practicing the task of describing her inner experience led to the improved coherence of Kathy's reports of her inner experience, we will argue that it is more likely that Kathy's reports became more coherent because her inner experience itself became more coherent.

Although everyone accepts that most externally observable behaviors are skills that must develop gradually as the result of the interaction of maturation and environment, many people uncritically presume that inner experience is something that emerges fully developed. We believe, and will argue here, however, (a) that inner experience must be created by the experiencer out of the inchoate welter of inner happenings; (b) that this creation-out-of-the-welter is a skill that is gradually acquired and honed; and (c) that some people, perhaps including those with some forms of mental illness, lag in their ability to create coherent inner experience. We will describe the progression of Kathy's reports of inner experience over our ten meetings together and discuss whether it is consistent with the notion that the changes in her reports reflected not merely reporting skill but reflected fundamental changes in her ability to create coherent inner experience. That is, her attempts to describe her inner experience became coherent because her inner experience itself became coherent. Ultimately, the ability to create inner experience may play an important role in psychological health.

32. Toddlers' Preferences for Same-Sex Adult Facial Stimuli

Andrea Kayl and Jennifer L. Rennels, Department of Psychology

During the first year, infants exhibit visual preferences for female relative to male faces (Quinn et al., 2002). These preferences may change as infants develop into toddlers and begin to acquire more knowledge about their social worlds. As children learn they belong to a particular sex, they become more active seekers of social knowledge and may begin to seek out members of that sex as models for determining appropriate activities and behaviors (Baldwin & Moses, 1996; Martin et al., 2002). The purpose of this investigation was to determine if 18- to 36-month-old boys ($n = 23$) and girls ($n = 26$) exhibit visual preferences for same-sex adults as a result of changes in self development and gender knowledge.

Although older and younger toddlers' overall preferences did not significantly differ, their patterns of looking appear to be changing with age. Younger girls are showing patterns in their preferences for highly sex-typical faces (both males and females). Those who prefer females also prefer high feminine females and high masculine males. Older girls are continuing to show preferences for female and feminine faces and starting to show preferences for low masculine male faces. These age trends may be related to girls establishing preferences for faces that are perceptually similar to females (i.e. low masculine). Boys are not showing clear patterns in their preferences. The added complexity of gender awareness that emerges during toddlerhood may lead to boys showing a lag in face processing expertise as compared to girls.

33. Factors that Influence Memory for Spatial Representations

Kathleen Larson and David Copeland, Department of Psychology

This study examined the extent to which people use mental imagery or linguistic labels of objects in their mental representations (mental models) when reading descriptions of spatial layouts. Ehrlich and Johnson-Laird (1982) demonstrated that when people read descriptions of spatial layouts (e.g. The sugar is on the left of the mustard. The mustard is in front of the knife. The knife is on the left of the spoon.) they try to form a coherent mental model of the spatial layout. Mental models are easier to use if the verbal description is continuous (i.e., every sentence refers back to an item in the preceding sentence). When a description is discontinuous (i.e., the first two sentences have no items in common), the information tends to be represented in propositional form, making it more difficult to retain the information in working memory. In addition, recent research by Copeland and Radvansky (2007) showed that people benefit when the descriptions are presented as images rather than text. The current study examined other factors that could potentially influence the use of mental imagery in memory for spatial layouts. In this study, participants completed spatial memory tasks containing concrete and abstract nouns and were asked to draw layouts using pictures or words.

34. Living with Literacy: The Social Effects of Learning in Rural Senegal

Angela Lewis, Department of Anthropology

This project explores the social effects of women's literacy programs in Kaolack, Senegal, situating the programs in the religious and cultural environments in which they have been constructed. Specifically, this research examines the tensions that attending Wolof literacy programs can create among co-wives in polygynous families who are expected to share household responsibilities from child-rearing to tending crops to cooking and cleaning. Such problems arise because women who attend literacy programs for a few months are spending more time away from the home and thus spending less time contributing to their family's direct needs. Because this is an ongoing project, results are incomplete. However, by completing participant observation with women in Kaolack in the summer of 2011, preliminary findings suggest that there is a strong correlation between one wife's attendance in a literacy program and increased tension between her and her co-wives. Research to be conducted in the spring of 2013 will further analyze the social effects of women's literacy programs by building on the research findings presented here. This research is significant to anthropology and other related fields as there has been little research conducted on the effects that implementing literacy programs have beyond statistical figures that calculate class success rates.

35. Calibrating Adults Estimates in Dot Enumeration

Alex Moore, Nathan Rudig and Mark Ashcraft, Department of Psychology

This study investigated the nature of linear responding within a 0-1000 dot enumeration task. Without calibration to the range of stimuli tested in this experiment, participants responded in a way that was best characterized as showing scalar variability, while calibration to the endpoint of the continuum elicited a logarithmic pattern of response. Adult and developmental number line estimation studies have shown that the integration of midpoint knowledge is an important aspect of linear responding, and this aspect of the task was provided to adults in a dot enumeration task to explore its influence in estimation.

36. Investigating Rural Nevadan Perspectives on Climate Change Solutions

Patricia Mynster, School of Environmental and Public Affairs

Literature shows that climate skeptics or Doubtfuls/Dismissives will only be more convinced of their position if given more information about climate change. Rather than focusing on climate literacy campaigns, this research is meant to ask skeptics about their beliefs in a way to see if commonly supported actions exist. Can a policy or solution that would help stabilize the climate find favor amongst Americans who do not believe the climate needs to be addressed?

Looking at previous surveys, both national and statewide, we see that rural Nevadans follow a common trend amongst conservatives with regards to their disbelief in anthropogenic climate change, except for their support for renewable energy. This research is a qualitative follow up to these previous studies. A semi-structured interview allows for the opportunity to compare answers to as well as the flexibility to have subjects elaborate on their answers to discover more about their beliefs, attitudes, and perceived knowledge of climate change and renewable energy development. Interviews will also include questions about where subjects get the information they base their beliefs on since controversial issues are often self-filtered through media and networks. If pro-renewable energy messages are being disseminated through this conservative community, it would be noteworthy to understand from where the message is coming from and how it is being disseminated.

Research will be conducted over the next month. Expected findings are that local economic interests will supercede national, political rhetoric.

37. Preschool Attendance and Childhood Obesity Among Hispanic Children Entering Kindergarten

Brian Neau, Amanda Haboush and Tara Phebus, School of Social Work

Childhood obesity has become epidemic in the U.S., and is especially prevalent among Hispanic youth. Childhood obesity is strongly linked to adult obesity and many serious health risks. Prior research has shown that preschool attendance may have a protective effect against obesity in Hispanic children, but most studies have been limited to low-income families in urban areas, thereby limiting generalizability to rural or middle-class families.

The purpose of this study was to confirm existing research using a large state-wide sample of Hispanic youth. We hypothesized that the current study would demonstrate that Hispanic children who attend preschool (center-based care or Head Start) will have lower Body Mass Index (BMI) rates than those who do not attend preschool, validating existing research.

We administered a health survey to the parents of children entering Kindergarten state-wide in both English and Spanish in order to facilitate research into health disparities. The final data set used for analysis included valid demographic information, health-related variables, and preschool enrollment for 1,260 Hispanic children. Preliminary results from an analysis of covariance indicate that, after accounting for income, BMI rates did not vary significantly between those in Head Start, private center-based care, or who stayed home; $F(2, 1140)=1.43$, $p=.239$.

Although approximately 40% of Hispanic kindergarteners were categorized as overweight or obese based on their BMI, these preliminary results suggest that preschool attendance may not have a significant protective effect against obesity for preschool-age children in the Hispanic population as a whole.

38. "Counseling the Unemployed": Reflections on a Pilot Clinical Program
Rebecca Nemecek, Colleen Peterson, Markie Blumer, Stephen Fife, Katherine Hertlein,
and Gerald Weeks, Department of Marriage and Family Counseling

Unemployment and resultant economic hardships have been significant issues in the lives of clients serviced by marriage and family therapists (MFTs), particularly in recent times. The nation has an unemployment rate of 9%, and the state of Nevada has the highest unemployment rate in the country at 13%. In an effort to assist clients during the shifting economy, the "Counseling the Unemployed" program was created within a university-based clinical setting. Student MFTs were educated on the effects of unemployment, potential strategies to help clients cope with issues related to the economy and joblessness, and then given an opportunity to share what was reportedly helpful in working with such clients via an online qualitative survey. For reliability and validity purposes, members of the research team analyzed the responses and collaborated to report emergent common themes. Clients who presented with issues related to unemployment frequently displayed symptoms of anxiety, depression, low self-esteem, and relational issues. Compared with clients who were not dealing with economic issues, clients who were unemployed possessed a degree of hopelessness and helplessness. Similarly, student therapists also reported experiencing hopelessness and helplessness when working with clients suffering from unemployment. Techniques that were found to be most helpful when working with clients who were unemployed included: 1) connecting clients to local resources, 2) using solution-focused approaches to increase self-esteem and focus on the strengths of the clients, and 3) emphasizing a high degree of non-blame and empathy for all family members. Implications for future research and clinical practice are discussed.

39. Convention Cities, World Cities

Christina Nicholas, Department of Sociology

My research is a timely study of the paradox of Las Vegas and a comparison it to a peer city, Orlando, FL. Las Vegas and Orlando are cities whose brands are solidified in public mind Las Vegas as Sin City and Orlando as the home of DisneyWorld and yet their importance in the global economy is more than that of cities of leisure. While each city has an abundance of desirable amenities that make them popular tourist destinations, they are also permanent fixtures in conducting business due to successfully catering to the needs of large-scale conventions. The goals of my research are to provide an empirical understanding of the value of conventions in both conducting business in a global economy and in the regional economic development opportunities available to Las Vegas and Orlando as hosts of the largest conventions in the US. Specifically, my research will analyze the dynamics of formal and informal interactions and the ways in which trust, knowledge transfer, and social and financial capital are shared between firms in a temporary cluster of exchange. I will also examine the ways in which the conventioners use the social realm (such as restaurants, bars, nightclubs, and strip clubs) to foster or inhibit inter-firm relationship building, and I will consider how these cities parlay conventions, which are temporary in nature, into a full-time operation that bolsters the city's revenue. The methodologies I will use in this research are interviews and social network analysis.

Graduate & Professional Student Research Forum
Social Science
Poster Session C
UNLV Student Union Ballroom

Posters 40 – 43: Judging at 9:00 – 11:00am

- 40. Caleb Picker, Department of Psychology
- 41. Erin Ramage, Department of Psychology
- 42. Justin Smith, Department of Marriage and Family Therapy
- 43. Erin Swallow, School of Environmental and Public Affairs

Posters 44 – 47: Judging at 10:00 – 11:00am

- 44. Danielle Teyssier, Department of Anthropology
- 45. Joseph Thomson, Department of History
- 46. Mary Elisabeth Timm, Department of Anthropology
- 47. Mary Vertinski, Department of Psychology

Posters 48 – 51: Judging at 11:00 – 11:45am

- 48. Jason Wasden, School of Environmental and Public Affairs
- 49. David Weintraub, Department of Psychology
- 50. Emily White, Department of Psychology
- 51. Aaron Woods, Department of Anthropology

40. Testing Continuous and Threshold Accounts of Recollection: Effects of Response Bias

Caleb Picker and Colleen Parks, Department of Psychology

Event recognition memory is crucial to daily living, and event recency judgments are independently supported by context-sensitive recollection and context-free familiarity assessments. Familiarity is continuously assessed across events, but recollection might either be continuously assessed or occur probabilistically. Thus, continuous and probabilistic recollection models agree that familiarity is a continuous process, and they agree about most functional differences between recollection and familiarity. One exception, however, is the effect of response bias manipulations on recollection. If recollection is continuous, then response bias manipulations should affect recollection-driven task performance but should not affect this performance if recollection is probabilistic. In general, when we varied the occurrence probability of certain test items, the results indicated that while responses were biased, performance across most recollection- and familiarity-driven tasks was not. These data are inconclusive, but they tentatively suggest that response bias is hard to manipulate, especially when performance is high. Follow-up studies will mathematically derive recollection and familiarity estimates to further examine their relationships with response bias manipulations.

41. Sound Segregation is Impaired in Schizophrenia

Erin Ramage, Amanda Flores, Griffin Sutton, Sally Barney, Erik Ringdahl, Daniel Allen and Joel Snyder, Department of Psychology

Auditory processing deficits in schizophrenia (SZ) may contribute to impaired real-world functioning by interfering with the segregation of multiple sound sources, such as the ability to hear speech apart from background noise. Therefore, this study evaluated whether sound segregation was impaired in SZ and if this was related to impairments on a more ecologically valid speech segregation task. SZ and control participants listened to 200ms complex harmonic sounds, with the second harmonic mistuned by 0, 2, 8, or 16%. Larger mistuning typically elicits perception of a second sound source akin to a pure-tone beepy sound, along with a complex buzzing sound. Participants pressed one of two buttons, one when they heard a single buzzing sound and another when they heard a buzzing sound plus a beepy sound. There was a significant mistuning by group interaction on the proportion of beepy sounds reported as segregated from the buzzy; the SZ group did not benefit as much from greater mistuning as compared to the control group. A standardized sentence-perception-in-noise task (QuickSIN) was also administered; participants repeated a sentence spoken by a female speaker while ignoring background sentences spoken by other speakers. The SZ group performed significantly poorer on the QuickSIN task as compared to the control group, and lower performance on this task across all subjects was associated with decreased sound segregation. The results suggest that impaired sound segregation in SZ may contribute to the difficulties patients have in complex real-world situations such as hearing speech in noisy environments.

42. Cyber-Systemic Themes in MFT Literature

Justin Smith, Katherine Hertlein, Markie Blumer and Harrison Allen, Department of Marriage and Family Therapy

The use of Internet technology has exploded with an estimated 240 million users of the Internet (Internet World Stats, 2010). Furthermore, the use of cyber technology in therapeutic and supervisory practices as well as the role of the Internet in the lives of individuals, couples and families is growing. Despite the ever expanding use of the Internet by everyone, there is a dearth of scholarly information with regard to the topic. The purpose of this research was to conduct a content analysis on articles published in seventeen predominate MFT journals from 1996 to 2010. Specifically, we were interested in whether journals address cyber systemic concerns and to determine in what manner, thematically, are these concerns addressed. Of the 11,472 articles examined in seventeen journals over the 15 year period, only 79 (.006%) focused on cyber or Internet issues. The researchers conducted three sorts to identify thematic categories within the literature on the topic of cyber systems. The identified themes of the content analysis included: (1) the Internet as a resource and training tool for professionals and clients, (2) the role of the Internet in couple relationships, (3) the use of the Internet for clinical practice (i.e., online therapy), (4) the use of the Internet for administrative purposes in one's clinical work, (5) the role of the Internet in the lives of children and adolescents, (6) ethical considerations in the use of Internet therapy, and (7) the relationship between the Internet and addiction. Research and clinical implications are considered.

43. Control of *Bromus rubens* through Carbon Addition

Erin Swallow, School of Environmental and Public Affairs

Bromus rubens, hereafter *Bromus*, is an invasive grass that has become established in the Mojave Desert Ecosystem. It is implicated as contributing to wildfires that have devastated desert ecosystems in recent years (Brooks 1999). Carbon addition is an anti-fertilization scheme that aims to reduce growth of invasive grasses through reductions in available soil nitrogen. This is accomplished by applying organic carbon to the soil, often sugar. The carbon then stimulates soil microbes to utilize available nitrogen, thus preventing its use by invasive annuals (Morgan 1994).

The goal of this experiment is to establish appropriate levels of carbon addition to use to control *Bromus* in the Mojave Desert. This information is necessary for managers to use carbon addition as a cost-effective alternative to herbicides. Previous work indicates that *Bromus* can be successfully controlled through carbon amendments, but not the amount of carbon that should be applied (DeCorte 2010). *Bromus* was planted in flats in a greenhouse and different levels of sucrose were applied. Plant growth was monitored and soil samples will be collected at the end of the growth cycle. Data will be analyzed for significant impact on growth.

44. Adding Meat to the Bones: Rotator Cuff Injuries and Behavior

Danielle Teyssier, Tony Waldron, Debra Martin and Department of Anthropology

This study combines ethnohistoric data and archival information to the analysis of human skeletal remains from a population living in post-medieval London (1700-1854). The human remains are from a wealthy area of the city and has higher frequencies of rotator cuff disease than from individuals from poorer areas in London. This finding is explained by the fact that rotator cuff is somewhat age-related, and so the individuals living longer due to better access to resources may have sustained higher frequencies simply by virtue of being wealthier. One unique finding is rotator cuff disease in one of the younger age categories (36-45) which is surprising. One of the major goals of this project is to combine the ethnographic and archival information recorded from this time period in order to "flesh out" the human remains and provide more contextual information. In particular, the addition of ethnographic information provided a way to interpret the appearance of rotator cuff disease in the younger age categories, as well as to better understand the ways that wealth impacts morbidity and mortality. This project adds to the emerging area of study that has been labeled ethnobioarchaeology.

45. Death of a Landmark: Kiel Ranch and the Politics of Preservation

Joseph Thomson, Department of History

The historic site commonly known as Kiel Ranch is significant at a national level for contributions to themes of westward movement and the upward trend of divorce in America. The ranch was settled during the post-Civil War period of migration serving as one of the few early settlements in this region. In addition during one of the prominent reincarnations of the property it served as a divorce ranch catering to the conveniences desired by divorcees serving the required 6 week period of residency.

Unfortunately it is also located in North Las Vegas, a city which is severely culturally challenged. While community efforts to save this landmark have been extensive and commendable the disdain and disregard for the site by North Las Vegas politicians has been greater. This examination and presentation is centered in the late 1980s, a period where political ambitions cemented the decline of preservation efforts.

46. Ode to Trotter: Sacral and Iliac Accessory Articulations in Tell Abraq, UAE (2200-2000 B.C.) Human Skeletal Population

Mary Beth Timm and Debra L. Martin, Department of Anthropology

Dr. Mildred Trotter was the first female president of the American Association of Physical Anthropology and one of the first female Biological Anthropologists. One of her many contributions was her study of accessory sacroiliac articulations. Trotter examined human skeletal populations from both the United States and Africa. Her hypothesis was that the facets were formed by carrying heavy loads low on the back such as a baby tied around the waist. This project uses a Bronze Age human skeletal population from Tell Abraq, United Arab Emirates to demonstrate the variability among males and females. Tell Abraq had a diversified economy that included large architecture (funerary structures and towers), agricultural products, domesticated animals, and interregional exchange with Dilmun, Mesopotamia, and Indus. While the settlements were not as large as the city-states of Mesopotamia or Indus, the diversified economy indicates that there was a division of social class and labor. The skeletal population from Tell Abraq is the only ossuary that was recovered from that site. The individuals within the tomb were presumably upper class because they could afford the tomb construction. However, the individuals have a high prevalence of activity markers, which would not be expected within the upper class of a diversified economy. The data demonstrate that on the ilium, the facets have similar sizes, shapes, and locations while the sacral facets vary. Tell Abraq males had higher prevalence of accessory sacroiliac articulations than females; however, the difference in prevalence by sex was not significant ($p > 0.05$).

47. Construct Validity of the Search Identification Task

Mary Vertinski, Daniel Allen, Nicholas Thaler, Devin Heisler and Sally Barney,
Department of Psychology

The Search Identification Task (SIT) is a cancellation task that assesses visual scanning, processing speed, attention, and executive functions. It consists of four levels of increasing difficulty. Each level has separate subtests that assesses verbal and nonverbal abilities. In addition, there are two equivalent alternate forms, A and B. This study was designed to evaluate the psychometric properties of the SIT.

Method: Participants included 90 normal controls who were 22.1 years of age ($sd = 5.0$), and 53.2% male. They were administered the SIT according to standard instructions. Participants were randomly assigned to two groups. The first group was administered SIT Form A and then Form B, while the second group was administered Form B and then Form A. Repeated measures ANOVA was used to examine differences in performance across difficulty levels, with form (A and B), modality (verbal vs. nonverbal) and group serving as factors. Number of cancellations on each subtest served as the dependent variable.

Results: Result indicated significant effects for Levels, Modality, and a significant Levels by Modality interaction effect. The forms increased in difficulty from Levels 1 to 3, although the difference between Levels 3 and 4 was not significant. Also, the verbal and non-verbal forms did not significantly differ at any of the levels.

Findings provide preliminary evidence for the construct validity of the SIT, although the lack of difference between levels 3 and 4 may indicate that level 4 may not provide any additional information above what is obtained from level 3.

48. Collaboration in Health Care Policy a Case Study of the CHOICES Program in Alachua County Florida

Jason Wasden, Christopher Stream, Ernita Joaquin and Michael Scicchitano, School of Environmental and Public Affairs

Federalism in health care policy requires a dynamic balance between the goals of the federal government and the capacity of state and local governments to serve their constituents. Presently about 20% of the Federal budget will be spent on Medicare and Medicaid. With the implementation of the Patient Protection and Affordable Care Act (PPACA) the federal government is requiring states to expand Medicaid programs by 1.25 percent in order to receive matching federal dollars to maintain their programs. The current recession has made it more challenging for states to expand services while their budgets shrink. Even by expanding Medicaid coverage; there is a population that is being denied health care services. Alachua County Florida has recognized the problem of the working uninsured, and has created CHOICES to help fill that gap. The push pull relationship between local and federal government has resulted in a potential unintended collaboration to provide comprehensive preventative care to the uninsured in Alachua county Florida. Collaboration between not for profits, federal government and local government is currently under way. The question is whether or not CHOICES has been effective and whether or not it could serve as a model for others to replicate.

49. Decay and Persistence of Implicit Memory for Sound: Evidence from Auditory Stream Segregation Context Effects

David Weintraub, Christopher Michey and Joel Snyder, Department of Psychology

The purpose of the current study was to determine the extent to which implicit memory effects in the perceptual organization of sound sequences declines over time due to passive decay versus active interference from other stimuli. Toward this aim, we took advantage of two recently discovered context effects in the perception of auditory streaming, the perceptual organization of sequential sounds into distinct streams. These two context effects depend on (1) the acoustic parameters of previous sounds and (2) previous perceptual organization of these sounds, respectively. Accordingly, the experiments measured how listeners' perceptual organization of a tone sequence was influenced by the frequency separation, or the perceptual organization, of the two preceding sequences. The results demonstrated clear evidence for decay of context effects over time, and little evidence for interference. However, they also revealed that context effects can be surprisingly persistent. These findings suggest the existence of two types of memory traces for sound patterns, one that decays rapidly over time and another that does not. The robust effects of decay and persistence were strikingly similar for the two types of context effects, suggesting that the rapidly decaying and persistent memory traces each contain information about both basic stimulus features of sounds (i.e., frequency separation) and the perceptual organization of these sounds.

50. Weight Concerns, Thin-Ideal Internalization, and Eating Pathology in Treatment-Seeking Female Substance Abusers

Emily K. White, Kim Claudat, Cortney S. Warren, Anne Lindsay and Sara Velasquez,
Department of Psychology

Introduction: Many women enrolled in substance abuse treatment programs endorse substantial weight-related concerns, which often motivate drug use.

Objectives: The purpose of this study was to examine the relationships between weight concerns and substance use in a sample of women seeking outpatient substance abuse treatment.

Methods: Adult women ($N = 299$) completed measures of drug use, body dissatisfaction, eating pathology, and thin-ideal internalization. On average, participants were 34 years old ($M_{age} = 33.88$), overweight ($MBMI = 29.36$), and had been in recovery for 1.5 years.

Results: Women who were concerned about weight gain during treatment ($n = 154$, 69%) reported significantly more body dissatisfaction ($F = 35.50$, $p < .01$), dieting behavior ($F = 18.94$, $p < .01$), bulimic symptomatology ($F = 7.76$, $p < .01$), and thin-ideal internalization ($F = 5.58$, $p < .01$) than women who were not concerned with weight gain. Similarly, women concerned that weight gain would trigger relapse ($n = 116$, 43%) reported significantly more body dissatisfaction ($F = 39.24$, $p < .01$), dieting behavior ($F = 44.53$, $p < .01$), bulimic pathology ($F = 13.12$, $p < .01$), and thin-ideal internalization ($F = 9.62$, $p < .01$) than women without these concerns.

Conclusions: Results suggest that female substance abusers with high weight-related concerns report significantly more eating pathology.

51. Continued Explorations at Stewart Pueblo

Aaron Woods, Department of Anthropology

Throughout the American Southwest, small pueblos or unit pueblos, consisting of only a few rooms are commonly interpreted as transitional or logistical sites. In the Mimbres-Mogollon region of southwestern New Mexico, small pueblos are common, but are often overlooked based on the assumption that they were used only as utilitarian, short-term field houses. Recent investigations of small pueblos in the Eastern Mimbres region suggest they were used for multiple functions through time, ranging from seasonal sites to more permanent, year-round habitations. Understanding the role of small pueblos in the Mimbres region is crucial to understanding key transitions in architecture, settlement patterns, and socio-political changes in the Mimbres Classic period (AD 1000-1150), the Post-Classic period (AD 1150- Late 1100s), and the Reorganization Phase (AD 1200s). This poster presents the results of continued testing at Stewart Pueblo, a small, Classic period (AD 1000-1150) pueblo located in the Mimbres River Valley. During the 2010 and 2011 field seasons, test excavations, mapping, and surface collections were performed. These explorations into Stewart Pueblo have yielded new and interesting information about a small site in the Mimbres Valley.

Graduate & Professional Student Research Forum
Education
Poster Session A
UNLV Student Union Ballroom

Posters 52 – 55: Judging at 9:30 – 10:30am

- 52. Jason Boggs, Department of Educational Research, Cognition and Development
- 53. Qiang Cheng, Department of Teaching and Learning
- 54. Zaid Haddad, Department of Teaching and Learning
- 55. Raelynn Frazier Lee, Department of Educational Research, Cognition and Development

Posters 56 – 59: Judging at 10:30 – 11:30am

- 56. Doug Lombardi, Department of Educational Research, Cognition and Development
- 57. Jessica Love, Department of Educational and Clinical Studies
- 58. Pamela Maher, Department of Teaching and Learning
- 59. Teri Marx, Department of Educational and Clinical Studies

52. Principal Change Facilitator Style and Student Learning: A Preliminary Causal Analysis of the Effects of Curriculum Quality and Teacher Implementation as Mediating Variables

Jason Boggs, Jill Cohen, Nicholoas Nardi, Ralph Reynolds, Gwen Marchand and Gene Hall, Department of Educational Research, Cognition and Development

Utilizing data from various elementary schools following an Empowerment model from a large southwestern school district, we attempted to examine why some schools substantially outperformed others in reading achievement. Through a causal analysis, this study examined the relationship between elementary school principal change facilitator styles and third grade reading performance through various mediating factors: Quality of reading curriculum, and Implementation of the reading curriculum. We found significant results showing that both the type and implementation of reading curricula are both significant in affecting student learning, and that these variables mediate the predictive relationship between principal leadership/change facilitator styles and student reading performance. This and future ideas for research are presented.

53. Reform and Traditional Instructional Effects on African and Caucasian Americans Mathematics Achievements Using 2007 TIMSS

Qiang Cheng, Jian Wang and Emily Lin, Department of Teaching and Learning

NCTM reform has focused more on promoting higher order skills teaching than traditional approaches which have emphasized basic, procedural skills teaching. This study investigated the relationship between the two types of teaching approaches and the mathematics achievement of African and Caucasian American students. Based on the theories of cultural learning styles and culturally relevant pedagogy, this study specifically examined such a relationship using TIMSS 2007 U.S. eighth grade data. Results from analysis using two-level Hierarchical Linear Modeling (HLM) provided empirical evidence to address the theoretical debates related to NCTM reformed teaching, traditional teaching, cultural learning styles, and culturally relevant pedagogy theories. These findings contribute importantly to the understanding of how to close the Black-White achievement gap.

54. Negotiating Identity in Teacher Education

Zaid Haddad, Department of Teaching and Learning

This poster presentation will focus on theories of identity development and situating theories of identity negotiation within teacher education as a field. Special attention will be paid to LGBT identity and how gay and lesbian teachers negotiate their identities in heteronormative schooling environments.

55. Personal Epistemology, Critical Thinking, and Moral Reasoning: Keys to Active Citizenship

Raelynn Frazier Lee, Lisa Bendixen, Lori Olafson and Robert Madden, Department of Educational Research, Cognition and Development

With citizenship as its context, the current study examines the relationships among what we think are key components of effective ill-defined problem solving: epistemic beliefs, critical thinking, and moral reasoning. Participants included 149 (107 females, 42 males) undergraduate ($n = 103$) and graduate ($n = 46$) education students. We hypothesized that views of citizenship would be significantly related to our main variables (i.e., epistemic beliefs, critical thinking, and moral reasoning). In addition, we expected that graduate students would have more advanced critical thinking and epistemic beliefs than undergraduates. Implications of our findings are discussed.

56. Teachers Emotions and Plausibility Perceptions of Human-induced Climate Change

Doug Lombardi and Gale M. Sinatra, Department of Educational Research, Cognition and Development

Topic emotions can have an appreciable impact on the learning process, particularly for controversial topics (Broughton, Sinatra, & Nussbaum, 2010; Griffith & Brem, 2003). Controversial topics may elicit strong emotions that could influence a plausibility judgment about the topic's message. Individuals especially those who are not disposed to think deeply may judge a message to be of lesser plausibility based on their emotions, and therefore, would not evaluate the quality of that message in comparison to their background knowledge (Chinn & Brewer, 2001). In such a case, individuals may not engage deeply in the topic and their learning would be reduced. This study examined the relationships among teachers' emotions about human-induced climate change, their plausibility perceptions, background knowledge of weather and climate distinctions (an important scientific principle related to understanding climate change), and needs for cognition and closure. Eighty-five teachers participated in the study and we found that topic emotions, specifically anger, shame, and hopelessness, were significant predictors of teachers' plausibility perceptions of human-induced climate change. More anger resulted in judgments of lesser plausibility, whereas greater shame and hopelessness resulted in greater plausibility. Need for cognition did not predict plausibility, but one subcomponent of need for closure decisiveness was significantly related, with greater decisiveness related to lesser plausibility perceptions of human-induced climate change.

57. The Effects of Matched Stimulation and Response Interruption and Redirection on Vocal Stereotypy

Jessica Love, Miguel Caio, Fernand Jonathan and Jillian LaBrie, Department of Educational and Clinical Studies

Two procedures that have been found to effectively reduce rates of vocal stereotypy are Response Interruption and Redirection (RIRD) and Matched Stimulation (MS). The purpose of the study was to evaluate the effects RIRD alone, MS alone, and MS + RIRD. Two 8-year old boys with Autism participated in the study. Data were analyzed using a component analysis within a reversal design. Results for participant 1 suggested equivalent suppressive effects for all treatment components on rates of vocal stereotypy. For participant 2, a slightly greater suppression of stereotypy was associated with MS + RIRD. For both participants, greater frequency of appropriate vocalizations was associated with conditions containing an RIRD component. Data was also collected on number of implementations of RIRD per session. For participant one, MS + RIRD and RIRD alone were approximately equivalent in the number of implementations. For participant two, MS + RIRD was associated with significantly lower implementations than for RIRD alone. The data suggest the treatment package of MS + RIRD may facilitate the implementation of RIRD in applied settings; however replication with additional participants is needed.

58. Understanding Physics Through the Machines of Leonardo Da Vinci

Pamela Maher, Allan Tucka and Janelle Bailey, Department of Teaching and Learning

Understanding Physics Through the Machines of Leonardo Da Vinci is a Nevada NASA Space Grant Consortium Informal Education grant that is currently providing research opportunities for undergraduate students at the College of Southern Nevada, a two-year institution in Las Vegas. Students enrolled in Calculus-based Physics, Civil Engineering-Statics, and Mechanical Engineering-Dynamics build a small machine from a kit based on the Codas of Leonardo Da Vinci in his book on machine inventions. They then analyze the concept that this model demonstrates and use equipment from the College of Southern Nevada lab that further demonstrates this principle. Using the machine and drawing analogs from the laboratory equipment enables the students to further understand these concepts and explain them to a lay audience. Students design and prepare a handout that explains the models and the physical science concept being demonstrated. The handouts also identify the Nevada State Department of Education Standard being taught. These pre-engineering and physics students gain experience in interpreting concepts in their field to children and the general public using models to engage their audience. Data collected from this research will be used to understand motivations for studying physical science and engineering in order to inform policy on ways to increase diversity and enrollment in these courses of study.

59. Exploring Various Dynamics of GLBTQ Populations: Factors of Race, Poverty, Disability and Religion

Teri Marx, Department of Educational and Clinical Studies

A poster presenting a review of the current research/literature on injustices experienced by Gay, Lesbian, Bisexual, Transgender, and Questioning (GLBTQ) youth based on multiple layers of oppression (i.e., race, ethnicity, SES, disability, religion) will be shared. Strategies for addressing personal biases with regard to educating GLBTQ youth and how to educate from a foundation of respect will be shared. Participants should walk away with a greater understanding of the situation faced by youth, as well as with tools to implement in their own classrooms or schools.

Graduate & Professional Student Research Forum
Art and Humanities
Poster Session A
UNLV Student Union Ballroom

Posters 60 – 64: Judging at 9:30 – 10:30am

- 60. Jennifer Rae Bell, School of Architecture
- 61. Carmella Cao, Department of Music
- 62. Noelle Garcia, Department of Art
- 63. Rory Heggie, School of Architecture
- 64. Andrea Limpede, School of Architecture

Posters 65 – 68: Judging at 10:30 – 11:30am

- 65. Erin Paul, Department of Music
- 66. Mariya Radeva-Nedyalkova, Department of Theatre
- 67. Shannon Salter, Department of English
- 68. Erik Swendseid, School of Architecture

60. Fringe Festival - Adelaide, Australia: "Resurrecting Sin City"

Jennifer Rae Bell, School of Architecture

During the fall 2011 and spring 2012 semesters I have been contributing to a collaborative effort between the Fine Arts departments at UNLV. Throughout this time, a show for the Fringe Festival in Adelaide, Australia has come to fruition, Resurrecting Sin City . Throughout March 3rd to March 11th we will perform in front of an international audience. We will not only showcase our individual departments within UNLV, but also our ability to take our individual fields and fuse them together into one production of Las Vegas. Our goals for the Fringe Festival are to create a show that is not only entertaining but represents the different arts at UNLV. Throughout the collaboration I have not only participated in my field of study, the design and building of the set, but also participated as an extra. My involvement of the Fringe Festival has not only helped me understand different lines of thinking throughout the arts, but also helped me develop my design and building skills in parameters not typically given in my architectural design studios.

61. Benefits of Attending the National Flute Association Annual Convention

Carmella Cao, Department of Music

Conventions and masterclasses are an integral part of developing as a professional musician. I received funding to attend the National Flute Association's Annual Convention and the Jean Ferrandis Masterclass (August 2011). As a performer and teacher, I constantly look for ways in which to improve my teaching and playing. The NFA convention offers numerous workshops that present various ideas and methods regarding education of different students and styles of music. I attended workshops pertaining to breathing, posture and the body when playing, performing, and practicing. These concepts are extremely important to master in order to teach students how to correctly use their bodies when playing the flute to avoid injury and enhance their performance abilities. Attending the Jean Ferrandis Masterclass was a great opportunity because Mr. Ferrandis is a world-renowned musician. He has a unique teaching style which he demonstrates by using a natural approach to the playing of the flute. As a doctoral student it is incredibly important to gain more experience, make connections, and improve as an educator and a musician. I also attended the convention to observe how the convention operated. I will be assisting Dr. Jennifer Grim and the UNLV flute studio for the upcoming NFA convention which will take place in Las Vegas.

62. Identity and Cultural Research

Noelle Garcia, Department of Art

I am an enrolled member of the Klamath Tribes. I am estranged from my tribe as well as my family; obtaining information on traditional practices of the Klamath Tribes and my father has proven to be difficult. Unfortunately I have found that many written and photo documents of the Klamath culture are inaccurate. My dad's life also tends to be a sensitive subject and difficult to approach with family members that are not familiar with me. My goals for this research was to record Klamath creation stories, mythologies and family stories directly from tribal members. I also wished to ask tribal members about uses of tools I photographed during previous research at the Museum of the American Indian. Most of the research was obtained through recordings of conversations as well as through photographs. I was able to obtain a great deal of information about Klamath mythologies and some information on how to use some gambling tools that I had encountered at the National Museum of the American Indian. I was also very fortunate to obtain photographs of deceased family members.

63. Architecture for Adelaide Fringe Festival

Rory Heggie, School of Architecture

The Adelaide Fringe Festival is one of the most diverse arts festivals in the world, renowned for fresh ideas and spontaneity. I am part of a group of art, theatre, dance, music and architecture students creating a performance that highlights each facet of the arts. The project allows for a strong integration of the arts, the ability to learn from other students, their disciplines, and it will provide me with a world view on the progression of the fine arts.

Due to the nature of the performance, I was part of the script collaboration and full production. I am specifically responsible for helping to design the visual aspects: lighting, set design, seating arrangement and visual projections. I have a small role in the play too.

Being a master's of architecture major, working with this diverse group of students allows for more art components to enhance my understanding of design principles. Utilizing the festival to integrate set and theater design into architecture is a valuable asset that others do not achieve during their time in architecture school. As well, a post occupancy review of the hub, at the University of Adelaide, will be taken during an outing. These elements all help integrate what I am currently studying and enhance future projects I will work on.

64. ACSA Conference Boston

Andrea Limpede, School of Architecture

It is an outstanding honor to have your work chosen for the ACSA Conference in Boston. The ACSA represents excellence in education and I cannot tell you how thrilled I am to be a part of this annual conference. However, this year is a momentous occasion because the ACSA celebrates 100 years of architectural educators gathering to talk about architectural education in conjunction with the architectural profession. My work focused on past and future projections of design within the realms of architecture, urbanism and landscape. PlaNYC 2030 was initiated by New York City officials to improve the infrastructure of New York City, as well as enhance the daily lives of its residents. It is estimated that by 2030, NYC will accommodate an additional 1 million people, yet by 2111 there will be an additional 4 million in NYC, totaling 12 million. Recognizing that daily living in the Big Apple is greatly enhanced by the park system and, most notably, Central Park; this poster questions the toll population growth and land value metrics will have on such spaces of the built environment. While analysis suggests that parks will not disappear, an architectural ebb and flow may see development encroach on such real estate. Displaced park space may then be re-appropriated or constituted in fashions that address evolving definitions of hospitality, proximity and priority.

65. Franco-American Vocal Academy Opera Orchestra

Erin Paul, Department of Music

In the summer of 2011, I traveled to Périgueux, France to participate in the Franco-American Vocal Academy opera orchestra. I am a hornist, working on my master's degree in performance, and had never played in an opera pit. The FAVA program provided a great opportunity to perform and gain experience in this new setting.

FAVA included approximately 45 vocalists in four casts of Jacques Offenbach's *Le Grande Duchesse de Gerolstein*, and we had limited rehearsal time before we were expected to perform. There were eight shows in total; four shows were run-outs, or shows in venues in surrounding rural towns, and four were in the Odyssey Theater in Périgueux. Each cast performed the show twice, once in a run out and once in the Odyssey. The orchestra was comprised of 12 players and a conductor, which made each individual part that much more essential to the quality of the accompaniment. Performing with four casts was also a challenge, as each singer brought their own interpretation of an aria to the table. The orchestra and conductor must be sensitive to subtle differences in voice timbre, ability to project and interpretive elements in any case, but here especially because the vocalists were students between 18 and 25, with voices that were not fully developed.

Overall, it was a valuable experience in the expectations of professional level performance, and performing in a foreign country. Unexpected elements, such as no air conditioning in the venues during a European heat wave, allowed me to step outside my comfort zone and rise to the challenges presented.

66. Research for the UNLV Theatre Production of *A Streetcar Named Desire*, by Tennessee Williams. The Unique Atmosphere of New Orleans and the Historical, Social, and Political Situation in USA Before and After WWII

Mariya Radeva-Nedyalkova, Department of Theatre

The research is important for the accurate representation of the script of Tennessee Williams in a theatrical production. It helps the designer to understand the world of New Orleans, 1940s and the arisen situation. The research is crucial for the successful interpretation of Williams' ideas. The author and the play are significant in American literature. The goal is to understand characters motives, and the reflection of the time period in their life's philosophy and experiences.

A Streetcar Named Desire brought Tennessee Williams to the highest level in the artistic expression in the theatre world. The play, and its characters: Blanche DuBois and Stanley Kowalski are renowned in Theatre (1947) and Film (1951) all around the world, since their first appearance. The play, its actors, and theatrical design were nominated and received accolades for great achievements. Williams received his first Pulitzer Prize in 1948 for *A Streetcar Named Desire*. For the exploration of the American literature and Theatre world, the study of Tennessee Williams and *A Streetcar Named Desire* are absolutely necessary.

Nowadays, the Theatre is challenged by TV and Economical situations. The audience is divided in experiencing the classics, and great creative ideas and thoughts, or enjoying the amazing technical achievements and effects. The strong performance supported by detailed research and knowledge will keep the audience, and the Theatre alive, centuries after its first appearance in Ancient Greece and Egypt.

The most important ingredients in the current research are: Williams's personality; the reflection of historical events such as WWII; the unique atmosphere of New Orleans; the life, and fashion before and after the war; and the influence of the art movement, such as Abstract Expressionism, on the style of the play.

The final goal is: The time period of 1940's to be accurately presented in costumes and manners. The appropriate interpretation is important to intrigue the audience of our century. The research is in support of the author's ideas. It translates the text to the present audience, and helps the new artists in their work.

67. Spiritual Landscape and Poetics
Shannon Salter, Department of English

As a poet pursuing an MFA, spending ten weeks in a non-English speaking country was a component of my degree program. My poetry is particularly inspired by landscape and its intimate connection to the human spirit.

With the money I received from GPSA, I split my abroad time between China and India, traveling by train through both countries. I began in Beijing on May 20th, and traveled south to Qufu, where Confucius lived and is buried. In Xian I was near the holy mountain Huashan, where Taoist writers, such as Chuang Tzu and Lao Tzu, were meditating and writing the spiritual poetry that inspired Taoism as a religion and discipline.

I also followed the Ganges River from very close to where it begins inside a Himalayan glacier, to the city of Calcutta all the way on the eastern shore. I visited several holy places along the way, including the tree under which Siddhartha Gautama (Buddha) was said to have reached spiritual enlightenment. I visited the sacred Hindu city, Varanasi, thousands of years old and on the banks of the sacred Ganges.

Throughout the journey, I contemplated the way in which the natural world inspires us because it is actually inside of us, a part of our spiritual core which gives life and breath to our poems. My experiences have deeply inspired my poetry and altered my entire worldview. A poem I wrote for the city of Varanasi was published in the poetry journal, *The Bitter Oleander*.

68. Las Vegas in Adelaide

Erik Swendseid, School of Architecture

As a graduate architecture student, I had the opportunity to participate in the Adelaide Fringe Festival this year. UNLV College of Fine Arts students from various disciplines produced a show based around unique themes that represent both Las Vegas and UNLV's history and diverse culture. Along with other architecture students, I was in charge of creating a theatrical environment for the show to happen in.

Given the nature of this collaboration, it has challenged me to refine the methods in which I communicate with other members of the design community. While there have been several instances in school that required me to collaborate with other architecture students, working with musicians, dancers, and actors in the last few months required that I respond to a very different and diverse creative method.

While at the festival, I attended many events and learned from other artists and collaborators from around the world that challenged and intrigued my thought process about how art and architecture can be mutually beneficial to one another. Also, a group of architecture students toured the University of Adelaide's brand new collaborative learning facility and produced research, in conjunction with previous work done by last year's traveling group in Adelaide, which will help UNLV officials determine how this kind of facility can be beneficial to UNLV's student and professional community.

Graduate & Professional Student Research Forum
Hotel Administration
Poster Session A
UNLV Student Union Ballroom

Posters 69 – 71: Judging at 10:30 – 11:30am

- 69. Stefan Cosentino, Department of Hotel Administration
- 70. Lang Jiang, Department of Hotel Administration
- 71. Xi Leung, Department of Hotel Administration

Posters 72 – 73: Judging at 11:30 – 11:45am

- 72. Landon Shores, Department of Hotel Administration
- 73. Yun Ying Zhong, Department of Hotel Administration

69. Ownership: A Content Analysis of Academic Research

Stefan Cosentino and Susan Roe, Department of Hotel Administration

This study examines the academic research published related to vacation ownership or timeshare industry. The purpose of this study is to develop an understanding of the body of knowledge and dimensions previously studied within the vacation ownership industry. Descriptive statistics are reported detailing the research methodology utilized, the functional area investigated, and the geographic area studied. A summary of the academic journals having published vacation ownership research is also presented. The findings of this study summarize 66 published peer-reviewed academic research as well as illuminate areas potential areas for future research. Citations of the articles included in the analysis are contained in the reference section.

70. An Exploratory Litmus Test for Upscale Hotel Properties: Does Rate Parity and Best Rate Guarantee Indeed Hold Up?

Lan Jiang and Mehmet Erdem, Department of Hotel Administration

Research objectives: Many hoteliers claim that the best rate guarantee (BRG) policy can be an effective tool for maintaining control over rate parity across channels. The BRG policy is reportedly offered on a large scale across the U.S. lodging industry. This study assesses the fulfillment of the best rate guarantee policy of upscale and luxury hotels and, respectively, examines the execution of rate parity across various distribution channels.

Methodology: The study focus was the upscale / luxury hotel segment in the U.S. due to the fact that many hotels within this segment offer some form of BRG. Nine world's largest hotel groups were included in the study sample. Within each hotel group, three to four properties were selected from the upscale / luxury segments. After selecting the qualified hotels, four third-party distribution channels (Orbitz.com, Priceline.com, Expedia.com and Travelocity.com) were selected for comparison with study sample hotels own distribution channels (websites, mobile apps, and Facebook). Five data collections based on different time fences were carried out for two target dates covering both weekdays and weekends.

Data were analyzed in two stages. First, descriptive statistics were used to determine an overall rate parity status across traditional and emerging distribution channels. Second, paired t-tests were used to document the differences among rates published on hotel controlled channels versus indirect channels.

Findings: Most hotels offered lower or consistent rates on their websites in fulfillment with their posted BRG, but failed to adhere to this policy on emerging channels such as mobile apps.

71. A Conceptual Model of the Marketing Effectiveness of Social Media in the Hotel Industry

Xi Leung, Pearl Brewer and Billy Bai, Department of Hotel Administration

The objective of this study is to assess the marketing effectiveness of social media channels in the hotel industry. Based on Motivation, Opportunity and Ability theory and web advertising hierarchy-of-effects, a conceptual model of social media marketing mechanism is proposed. An online survey is conducted to test the conceptual model and compare the marketing effectiveness of two different social media channels on a selected sample hotel. Based on the results, suggestions on how to efficiently employ different social media channels in the hotels to achieve marketing effectiveness are recommended.

72. The Interaction of Information Technology and Judgmental Forecasting: An Overview of Revenue Management Research Perspective

Landon Shores, I-Pei Claire and Mehmet Erdem, Department of Hotel Administration

Some scholars indicate that human judgment is now a required element contributing to the most precise forecasts. There is also consensus on the critical role information technology plays in achieving an accurate revenue management forecast. The purpose of this study is to examine and understand the interaction between information technology and judgmental forecasting within the context of revenue management.

73. Perceptions on Generation Z across the Lodging Industry Supply Chain: A Qualitative Inquiry

Yun Ying Zhong and Mehmet Erdem, Department of Hotel Administration

Introduction

Rapid advances in technology is considered to be a transforming force of change over existing social, economic and political landscapes (Valentine & Holloway, 2002). Inevitably, technology also plays a major role in shaping our future workforce: Generation Z.

Generation Z refers to the generation of youth born after 1990. It is the first generation born into a completely digital era, and thus they are also called digital natives. (Geck, 2006). The members of this generation are under a strong technological influence. They are extremely savvy with mobile and technological devices, and tend to communicate or befriend with others virtually through texting, video talks and social media platforms (Muller, 2011).

There is still an ongoing debate over the effects of technology on influencing generation Z's social interactions. On one hand, technology, such as social networks, free users from the constraints of space, time, and identities. Thus technology enables its users to expand their social space and develop a concept of world without borders (Valentine & Holloway, 2002; Levickaite, 2010). On other hand, technology is considered as a worrisome medium which is able to draw youth away from their social reality. A recent study showed that generation Z, when compared with other previous generations, is more likely to think that virtual socialization can be a substitute for face-to-face interaction. (Levickaite, 2010).

Purpose of Study

Hospitality industry has been traditionally characterized as being high touch and low technology. As generation Z will soon become a major hospitality workforce, it is critical to understand how hospitality managers perceive the highly technology-influenced generation Z. More specifically, this research project intends to study how hospitality managers perceive the influences of technology on Generation Z's social skills, communication styles and ultimately job performance. The study also intends to explore whether hospitality managers will alter their existing human resource practices to accommodate unique characteristics of Generation Z. The study aims to be a pioneer effort on understanding how the hospitality industry anticipates its newest generation of workforce. It also provides a futuristic view on the forthcoming human resources management of Generation Z, which has to optimize this unique human capital to deliver the end product: consistent service and experience.

Methodology

Preliminary data was collected during the 2011 International Hotel, Motel and Restaurant Show held in New York City. Semi-structured interview questions were used to prompt key stakeholders in the hotel supply chain to talk about their perceptions of the influence of technology over Generation Z (see appendix A). For the purposes of this study, the key stakeholders are defined as hotel operators, vendors and suppliers.

Preliminary Research Findings

The initial review of interview data collected indicated differences in perceptions of Generation Z amongst the key stakeholders. Vendors and suppliers had similar views and expressed similar opinions while hotel operators shared differing views in comparison to the other two key stake holders in the industry.

In terms of identifying human resource practices to accommodate Generation Z or plans on having new procedures in place, the responses provided were not consistent. However, the need for identifying the proper practices was in the forefront in most responses. Several of the participants expressed an interest in the findings of the full study and requested to be informed when the final results are available.

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