Daisy Aceves, Chadrick Bray, Gloria Hernandez Sophia De LaTorre, Caroline Kiss-Lee, Psychology

Does Critical Thinking Ability Predict the Occurrence of Real Life Events?

Faculty Mentor: Heather Butler, Psychology

Critical thinking is held with great esteem in academia, but is critical thinking important for our everyday life? Some have argued that the world gets more complex and technical with each passing day, so the importance of critical thinking cannot be understated. Others have argued that critical thinking is just the new buzzword in academia and that there may not be real world implications of critical thinking. Prior research (Butler, 2012) found a relationship between critical thinking and real life events, such that those who scored higher on a critical thinking assessment reported experiencing fewer negative life events than those who scored lower on a critical thinking assessment. The author concluded that critical thinking may play a role in our everyday lives, but this study failed to include positive life events. The current study extended the previous research by including positive life events. The study compared college students (n=58) critical thinking to both negative and positive real world outcomes. The revised inventory was a self-report, behavioral inventory of negative (e.g., paying a late fee for returning a movie rental late, filing bankruptcy) and positive (e.g., having a high credit score, getting insurance rate lowered because of good driving) life events. There was an inverse relationship between the proportion of negative life events experienced by the respondents and scores on the critical thinking assessment ($r = -0.239$). That is, those with higher critical thinking scores reported fewer negative life events. There was a positive relationship between the proportion of positive life events experienced by the respondents and scores on the critical thinking assessment ($r = 0.401$). That is, those with higher critical thinking scores reported more positive life events. Consistent with prior research, the findings from this study indicate that critical thinking impacts our everyday lives.

Claudia Aguilar, Psychology

Be Careful What You Post: An Investigation of Criminal Personality and Social Media

Faculty Mentor: Larry Rosen, Psychology

In recent years, the popularity of social media sites is ubiquitous and such sites as Facebook and Twitter continue to serve as a place where people can update their friends about their life events. More surprisingly, it has now become a common place where criminals have shared their crimes. Many times an individual's decision to post their crime on social media, whether it was to brag or confess has led to their arrest. Previous research has found that individuals with high levels of narcissism engage in frequent Facebook use (Buffardi & Campbell, 2008). One of the characteristics that narcissists hold is lack of empathy, which has also been found in psychopaths to a certain extent (Meffert, Gazzola, den Boer, Bartels, & Keysers, 2013). This study is aimed to explore whether individuals who share narcissistic traits will or have posted a crime they have committed online. This study seeks to contribute to the lack of scientific literature about this phenomenon.
Claudia Aguilar, Aimée Miller, Jose Lara-Ruiz, Psychology

The Effects of Everyday Multitasking and Technology Use in the Net Generation

Faculty Mentor: Mark Carrier, Psychology

Individuals that have been exposed to and immersed in electronic multimedia from an early age have become adept at interacting with electronic devices. This early exposure to technology and frequent use of multiple devices and technologies in tandem, during critical developmental stages, may result in an increased cognitive capacity to carry out several tasks simultaneously. The purpose of this research was to further explore this phenomenon in the Net generation. This study examined whether performance on a simulated multitasking task (SMT) would be impacted by participants' increasing everyday multitasking, technology use, or a combination of both. The study sample consisted of undergraduate students between the ages of 18 and 33 (N=178). A questionnaire was administered to assess everyday multitasking (EM) and technology use. Participants completed two tasks individually; one task involved responding to a series of simulated text messages, while the second task simulated a telephone conversation. The subjects then completed these two tasks simultaneously. Each activity was timed and an experimenter recorded errors. The results of analyses indicated that the High EM Group (M=.21, SD=.25) saved significantly more time by combining the tasks than completing them separately, when compared with the Low EM Group (M=.09, SD=.31); t(119)= -2.18, p<.05. Furthermore, their error rate did not increase as a function of multitasking. However, technology use was not associated with multitasking performance, nor was an interaction effect noted between variables. These findings are consistent with previous studies that have found no effect of technology use on multitasking performance. The results of this study suggest that exposure to and the practice of EM serves to enhance multitasking performance, at least in the younger generation. Data is currently being collected for a follow-up study designed to address the limitations of the initial study.

Alberto Aguilar, Jennifer Carrasco, Digital Media Arts

"Drinking & Driving"

Faculty Mentor: George Vinovich, Digital Media Arts

The objective of this television public service announcement is to increase awareness of the dangers of drinking and driving after parties. Co-producers, Alberto Aguilar and Jennifer Carrasco, took this project through the entire production cycle.
Mayra Aguilera, English

Expressions of Gratitude: An Interlanguage Comparison between Native Speakers of American English and Mexican, Nonnative speakers of American English

Faculty Mentor: Vanessa Wenzell, English

This analysis investigates how Mexican ESL speakers express gratitude compared to Native American English speakers. After having four Native American English speakers and four Mexican ESL speakers’ complete 12 discourse completion tasks (DCT), varying on the levels of interlocutor familiarity and degree of imposition, findings showed that a thanking statement is necessary in every thanking speech act, regardless of interlocutor familiarity and degree of imposition. Also, a statement of repayment may be necessary, depending on the relationship one has with the interlocutor as well as the degree of imposition. If the relationship is less formal and more intimate, then a repayment statement may not be necessary in a medium imposition level situation. However, if the relationship is more formal and less intimate, then a repayment statement may be necessary in a medium imposition level situation. In addition, if the imposition is high, a repayment statement is almost always required, regardless of interlocutor familiarity. My investigation revealed that Mexican ESL speakers sometimes tended to forget the thanking statement at the medium and high level of imposition as well as repayment statements at the high imposition level. Teaching the components of the thanking speech act and how these components vary in different situations is essential to pragmatic competence of English. When an interlocutor fails to express gratitude or does so inappropriately, the relationship between interlocutors may become strained (Cheng, 2005). As a result, ESL/EFL learners should be taught how to execute the expression of gratitude appropriately. Consciousness arising activities and role-play may help students fully grasp the thanking speech act in English.

Hector Aguilo, Computer Science

Examining the Effectiveness of Computer Vision in Autonomous Underwater Obstacle Detection

Faculty Mentor: Antonia Boadi, Computer Science

Autonomous underwater vehicles (AUVs) are robots designed to travel completely submerged without any need of a human user or pilot to control it and are useful for underwater exploration and mapping, especially in areas that would be too dangerous for humans to explore. These tasks require the ability to detect obstacles and navigate around them. A popular approach for detecting obstacles is through the use of sonar, but this approach can be cost prohibitive and may cause harm to and confuse underwater wildlife. Instead, this research examines the effectiveness of a computer vision-based obstacle detection system and attempts to determine the circumstances in which this system is an acceptable approach. The downside of underwater computer vision-based obstacle detection stems from the distortion of light in water and the tendency for the body of water being explored to be murky and clouded with dirt and debris. Using an experimental approach, the goal of this research is to implement a working computer vision-based obstacle system and comparing its effectiveness when exposed to differing levels of light and murkiness.
Liliana Albarez, Business

Scouter mon coeur is a DIY fragrance store

Faculty Mentor: Cal Caswell, Management

Écouter mon coeur is a DIY fragrance store in which customers can customize the scent of their fragrance with the help of a perfume specialist's. The customer will be involved in the whole process from creating their own unique scent, designing their own bottle as well as customizing a name of their choice.

Écouter mon coeur believes in individualisms, and we strive to achieve this with this new idea by helping our customers create, individual and exclusive scent that can represent them as individuals.

Écouter mon coeur is an innovated idea due to the customization in fragrance, which has not yet been developed in the location in which we are marketing to. In today's society is all about individualism and standing out which a Fraces can definitely set you apart.

The perfume industry is an on going business that keeps growing year after year specially with so many celebrities creating their own fragrance and marketing their fans. In today's society cosmetics are the driving volume objects and no matter how bad your economical statues may be every one always wants to look good and smell even better. No one ever leaves his or her home with out spraying something on. Others tend to carry a perfume bottle every were they go leaving it in their car or even carrying it in their purse.

Écouter mon coeur is an innovated idea that can drive a huge amount of volume if located at the right place and also if we market to the correct target market. Everyone likes individualism and we like to set apart from everyone else and our scent is a perfect way in which we can set ourselves apart. How good you smell can often bring many compliments as well as increase his or her self-confidence within.

Marina Armendariz, Abraham Ruiz, Psychology

Attitudes Towards Science Among the Religious and Educated

Faculty Mentor: Heather Butler, Psychology

Science and religion are two entities that do not see eye-to-eye, or at least that is the presumption. Although there are religious groups that have greater faith in religion than science, previous research indicates that science and religion are not as incompatible as most people believe and can in fact co-exist. The purpose of this study was to investigate the role religion and education play in people's trust in science. Responses from the 2008 administration of the General Social Survey (a biennial survey that collects demographic and attitude data from adults in the United States) were used to examine respondents' attitude towards science (i.e., their trust in science) based on how religious they reported being, their attendance of religious services, and their college degree (no degree/degree). A multiple linear regression was conducted to test the prediction that those who are very religious, attend religious services often, and have a college degree will not think we trust too much in science. This prediction was partially supported and was consistent with the literature. The results indicated that those with a degree had a higher trust in science (p<.001). In contrast, those who attended church services frequently had less trust in science (p<.001). Contrary to expectations, those who considered themselves extremely religious had a higher trust in science (p<.001). The common goal of understanding and improving human existence using science and religion could be a benefit to our society. Future research could investigate other reasons why individuals who regard themselves as extremely religious would still support science.
Marina Armendariz, Abraham Ruiz, Victoria vanTwist Yessenia Magaña, Psychology

¿Que comes? Diabetes Related Eating Patterns Among At-Risk Latino College Students

Faculty Mentor: Silvia Santos, Psychology

The present study is part of a larger NIH funded investigation that examined diabetes related eating habits, perceived health and actual health status of Latino college students who are at a heightened risk for future diabetes onset. Participants were 156 Latino university students who had a first or second degree relative afflicted with Type 2 Diabetes. A socio-cultural perspective derived from the health behavior model guided inquiry of within group variations in obesity related eating patterns. Specifically, a series of statistical analyses were conducted to identify group differences based on participants’ age, gender, and generational status in the United States in terms of fat habit consumption. T-tests analyses revealed that women practiced healthier behaviors to avoid fat intake than men. ANOVAS conducted by age groups and generational status indicated that older adults and first generation Latinos were less likely to use fat as flavoring than younger and later generations. Furthermore, multiple linear regressions were conducted to examine the association of fat intake habits with participants eating out patterns and their Diabetes Risk Score. The model showed that mainstream fast food and ethnic fast food were significant predictors of higher fried food consumption. In addition, fat intake habits were a significant predictor of having a higher Diabetes Risk Score. Lastly, bivariate correlations examining the association of perceived health with participants’ Body Mass Index and Diabetes Risk Score revealed a negative correlation indicating that those with higher indices on these health outcome variables were more likely to report a lower perceived health score. The reported findings suggest that at-risk Latino college students are aware of their unhealthy eating behaviors and high-risk profile. The accurate perceptions of their health status with perceived health could lead to a greater willingness to participate in health-related university-based intervention programs.

Timothy Arnold, Rotem Douer, Michael Dreyfuss, Occupational Therapy

Occupational Transition from Adolescence into Adulthood: A Phenomenology

Faculty Mentor: Claudia Peyton, Occupational Therapy

The transition from adolescence into adulthood is a time period associated with challenges, opportunities, and new experiences. Though there are individual differences in transition experiences, this phenomenon is recognized as a critical time of identity formation and rapid change that is shared by young adults in all cultures. The purpose of this retrospective phenomenological and photo voice study was to explore experiences of transition from adolescence to adulthood among adolescents ages 20-25 who are typically developing, as well as those who have social, emotional, or physical challenges. Findings have provided an understanding of the experience of transition and thus further defined it, and have clarified areas in which Occupational Therapists may provide support.
Toumik Asatoorian, English

Ahab and Ishmael's Quest to Find the Insular Tahiti in Man

Faculty Mentor: Jon Hauss, English

In my study of Herman Melville's Moby Dick I hope to outline the forces, which propel both Ahab and Ishmael to venture into the turbulent and tenacious sea. Both men venture into the sea in order to meet, face to face, with what Melville calls the "ungraspable phantom of life" (Melville 20). The profession that both men have engaged in, whaling, brings them in close combat with the most mysterious creature of the sea, the sperm whale. Even among the ranks of the mysterious and deadly whale there is one, which Melville describes as the "grand hooded phantom," Moby Dick (Melville 22). If any creature of the sea could bring men closer to the ungraspable phantom of life, it would be Moby Dick.

My efforts draw upon textual evidence and supportive literary criticism to determine the motives of each individual, as well as the means and methods both characters use in their quest for truth. Ishmael's labor-intensive quest and Ahab's mad monomaniac hunt paint vivid pictures and give us clues as to why one survives while the other doesn't.

I believe that Ishmael survives the doomed ship, not simply to relay the narrative, but because within him still lingers a peace which Melville refers to as an "insular Tahiti. (Melville 225)" Ishmael understood that this peace can best be appreciated and understood by gazing upon the terror which is the sea. Ahab on the other hand has abandoned all hopes of ever returning to that quiet island within.

Daniel Ayala, Jennifer Mendoza, Digital Media Arts TV

Beat PSA

Faculty Mentor: George Vinovich, Digital Media Arts

We saw that domestic violence was an epidemic and wanted to surround our project on bringing the issue up. We wanted to create a voice for women who are sometimes silenced in fear, and to bring awareness of the incidents that sometimes occur in society. We also came across shocking statistics, and we thought that society should know in order to solve this issue. We make the issue known and we provide contact info on resources for women, which can help them better their lives.

Cynthia Ayala-Munoz, Omar Bernal, Monique Turner John Gibson, Psychology

An Examination of the Impact of Psychosocial and Neurocognitive Factors on the Health of Older College Students

Faculty Mentor: Karen Wilson, Psychology

It is predicted that by 2030 one in every five Americans-about 72 million people-will be an older adult, 50 years of age or more (CDC, 2013). With the recent passing of the Affordable Care Act, this increase in the older adult population will place an increased burden on the nation's social services and health care systems. This study seeks to investigate the psychosocial and neurocognitive factors associated with health outcomes in sixty older adults. Participants are currently being recruited from the California State University, Dominguez Hills campus and are administered a battery of neuropsychological tests designed to assess executive functioning, sexual risk behaviors, and perceived stress, among other variables. One of the main hypotheses is that older adults with comorbid medical conditions will have more difficulties with executive functioning tasks than older adults without comorbid medical conditions. The findings of this study may lead to prevention and intervention programs that take action to enhance the overall quality of life in the older adult population.
Student Research Day 2014 - Abstracts

Eddie Banuelos-Casillas, Physics

ClaRA: The CLAS12 Reconstruction and Analysis framework

Faculty Mentor: John Price, Physics

Like most modern nuclear physics experiments, the CLAS experiment at the Thomas Jefferson National Accelerator Facility (JLab) needs to deal with extremely high data rates; at CLAS, they can be as high as approximately one terabyte (TB) per day. The upgrade of the accelerator energy, and the upgrade of the CLAS detector necessitated by it, will increase the data rate by approximately a factor of five, making it even more important than ever to implement efficient data reconstruction and analysis techniques. Cloud computing provides an efficient and economically feasible way to handle such a large amount of data. A Beowulf cluster is a common type of setup for such a purpose; it uses many similar computers, all connected to each other, performing a task in unison. At the CSUDH Hadronic Structure Laboratory (HadLab), we have built a 44-node Beowulf-like computer cluster operating a Linux distribution of Rocks Cluster that is based on CentOS. All of the computers in the HadLab cluster are recycled, mostly from computer labs on campus, to reduce the overall cost of the cluster; two of the HadLab nodes perform administrative functions, while the rest perform the calculations done by the cluster. The software used for this work is the CLAS12 Reconstruction and Analysis framework (ClaRA), a service-oriented architecture in which data processing algorithms filter continuously flowing data. This talk will present the motivation behind the ClaRA framework, and will discuss the current status of the development project.

Zachary Barton, Max Cisneros, Ana Elias, Art and Design

Hearts For The Arts

Faculty Mentor: Michele Allan, Art & Design

The Purpose of our project was to bring the performing arts to 107th St Elementary School in Watts to produce a yearly play. The play is usually funded by the teachers' contributions and student bake and snack bar sales. We formed a design group and named it "Hearts For The Arts" to assist the students to fundraise for their play through the creative use of design. Our main event was an on-campus bake sale in November, which raised a quarter of our goal of $1000. For our "Hearts for the Arts" design group, we created a logo, color palette, and typeface combination to establish a branding identity. We used this identity to create packaging for the bake sale. We also used it for posters around campus that advertised the bake sale, and a banner for the bake sale. In addition, we designed thank you cards to hand out at the bake sale, with recipes of each item on the back of each card. We did this to create a "homemade" feel, and to be interactive with our audience. If customers enjoyed the baked goods they purchased, they will hold on to these recipe cards, and the cards will be a constant reminder of our cause along with our web page link for further donations. Since the production this year is The Lion King, every item sold at the bake sale was inspired by that theme. Our overall branding identity also reflects The Lion King theme. All deliverables and packaging for the bake sale restated where the money will go and had the web page link. The deliverables gave our cause even more exposure and gave our audience the opportunity to follow the web page link and donate more money. Much of our fundraising was through social media as we created a webpage using gofundme.com. Then we constantly made posts on Facebook and twitter describing our cause and asking for donations. All aspects of our project, from designing the website to the recipe "thank you" cards, showed how the creative use of design can inspire a successful fundraising campaign through building on an inspirational concept and cause.
Student Research Day 2014 - Abstracts

Victor Bell, Chemistry

Developing Live Imaging Techniques to Analyze Early Stages of Lung Tumor Formation Faculty Mentor: Kenneth Rodriguez, Chemistry

Lung cancer is a leading cause of death both in the United States and worldwide. Adenocarcinoma is a type of non-small cell lung cancer that is characterized by large, glandular epithelial cells originating in peripheral lung tissue. It accounts for nearly 40% of all lung cancers and is concurrently the single most prevalent type among both smokers and non-smokers. Fibroblast growth factor 9 has been implicated as a potential oncologic signal in adenocarcinoma; and although it has been shown that FGF9 induction results in tumorigenesis in the lungs of adult mice, much of the behavior of lung tissue within the first few hours of cancer initiation is unknown. Previous studies have shown the rapid proliferation of cells located in the bronchioalveolar duct junction that co-expressed the Clara cell-specific marker, CC10, and the type-2 alveolar cell-specific marker, SftPC, within 16-hours of FGF9 induction. However, it is unclear if increased mitotic activity alone can explain the rapidly expanded presence of these cells. Here, we describe a technique for imaging the deepest areas of live lung tissue via slicing the lung into thin sections. This technique was applied to FGF9-inducible transgenic mice in order to evaluate its use as a method of studying the early stages of FGF9-induced adenocarcinoma during the initial hours of tumorigenesis.

Jonathan Bentley, Psychology

Video Games may Improve Students Performance in STEM Fields Faculty Mentor: Alex Lim, Psychology

In 2010, video games brought in $25 billion dollars of revenue which more than doubled box office sales in movies that earned $10.8 billion dollars. It may come as no surprise that at least 97% of children and adolescents living in America play an average of one hour of video games per day. While a majority of video game research has primarily focused on the negative effects such as increased aggression, depression, and addiction. There has been a recent surge in the literature on the cognitive benefits from playing video games such as proactive cognitive control, visual attention reducing cost of switching tasks, cognitive flexibility, and spatial cognition. For instance, high spatial skills which requires one to manipulate 2D and 3D objects has been shown to predict high achievement in the sciences, technology, engineering, and mathematics (STEM). The purpose of the research is to review past and current literature to examine components in video games are linked improved performance in the STEM domains. In addition, implications for this research include suggestions for future research to identify how video games can be developed and utilized to effectively increase skills that are related to STEM fields.
Kristen Berube, Health Science

Gender Differences in Parenting Perceptions and Health Behavior Effects of Mediterranean Adolescents

Faculty Mentor: Enrique Ortega, Health Science

Hypothesis: This investigation explored the associations between perceived family strictness of rules and a number of health behaviors commonly seen as negative outcomes of problematic parenting. Rationale: While much is known about this topic among US populations, not much is known among Mediterranean adolescents. Furthermore, due to differences in the application and interpretation of parenting rules according to gender in such culture, we were interested in analyzing the effects by gender. Methods: The sample consisted of 302 Italian high school adolescents (48% female), ages 15-19 years (mean age = 17.4 (S.D. = 1.4)). The participants were representative of the population of adolescents attending high school in this part of Italy. Bivariate correlations were used to explore the associations of among our variables of interest. This investigation employed secondary analysis investigative methods. Results: Results among males indicated that greater perceptions strictness of rules were negatively correlated with alcohol use ($r= -.171$, $p<05$). Greater indications of strictness inside the home were also associated with less alcohol use ($r= -.242$, $p< .001$). Results among females showed that greater indications of perceived strictness of rules were negatively associated with marijuana use ($r= -.286$, $p<.001$) and alcohol use ($r= -.267$, $p=.001$). Similar findings were shown with greater indications of strictness both inside and outside the home. Greater parental support was negatively correlated with marijuana use ($r= -.201$, $p<.02$), tobacco use ($r= -.226$, $p<.03$) and eating disorder ($r= -.292$, $p<.001$). Principle conclusions: These results show a marked difference on the health behavior effects of perceptions of parenting according to gender. Such findings indicate that the influence of parenting on health behaviors may be gender specific. Further research is needed which can help clarify such differences. This information could be vital for the development of health risk prevention efforts.

Amany Bishara, Amany Bishara, NCR Peacebuilding

The Role of Peace Education in Transforming Divided Nation; Case Study: Egypt

Faculty Mentor: Nancy Erbe, Negotiation, Conflict Resolution and Peacebuilding

Although the inclusion of education has been identified in several peace treaties post World War II, there has not been enough research to explore the role of education as a peace building strategy in conflict-ridden states. Ironically, in some cases education can be an effective tool for escalating a conflict, given the role that political actors may play in manipulating the messages channeled through the school apparatus. Egypt is an example, where the collapsed educational system has facilitated the use of the classroom as an incubator for radical religious ideology and the retelling of a narrative that primarily promotes in-group perspective. Therefore, if peace education is to be utilized in Egypt as a building block towards healing a divided society, improving the quality of education has to be addressed as a crucial step towards eradicating social injustice. Moreover, it is imperative to conduct research that examines the effectiveness of creating a new curriculum, which will integrate peace education in its core subjects. The context of the conflict, the societal preparedness for transformation and the current political environment are to be considered in the formation of the peace educational program. The research will seek to identify proper methodology of training teachers to learn how to effectively create a culture of peace inside the classroom. The initial step involves interviews with a non-random sample of Egyptian*. The questions will examine their understanding of peace education and the idea of creating a progressive school curriculum that is founded on the principles of peace, collaboration, and the value of creating a dialogue with others. The study will require multiple visits to establish collaboration with the local Ministry of education in Egypt, hold training workshops that could identify the prospective teachers and form a local team that will help form the new curriculum.
Amy Blair, Negotiation, Conflict Resolution and Peacebuilding

Seeds of Discord: Can Organic and Transgenic Food Producers Co-exist Peacefully? Faculty Mentor: Margaret Manning, Negotiation, Conflict Resolution and Peacebuilding

Peace-building principles are used to analyze the parties and issues in a major national conflict and recommend conflict resolution strategies. Since the 1980's, biotechnology has been applied to agriculture in order to create transgenic organisms that are more commonly referred to as genetically modified organisms (GMO's). The organic farming industry strongly opposes transgenic organisms and actively challenges the patenting of seeds by biotech corporations such as Monsanto. Biotechnology is regulated by federal agencies -- the FDA, EPA, and APHIS -- and organic farmers object to the FDA's refusal to label organic foods as "non-GMO" and reluctance to require the label "contains GMOs" on transgenic foods. This hostile relationship between proponents of organic farming and transgenic farming is detrimental to achieving co-existence of both types of farming. The different factions can be depicted by a vertical pyramid with federal regulatory agencies at the apex; state governments, seed corporations, food manufacturing conglomerates, and retail grocery chains at the next level. The lower levels include the organic farmers, activists, and consumers at the grassroots level. Currently, the federal regimes involved do not regulate biotechnology in a way that addresses the needs and concerns of organic farmers. Biotech corporations do not support labeling of their transgenic food products. And organic farmers, activists, and consumers often resort to demonizing both the government and biotech corporations in an effort to maintain support of their position. In some instances, consumer opinion has influenced individual companies, such as Whole Foods, to require labeling of any GMO products they sell, as well as influenced companies like General Mills to stop using "GMO's" in Cheeroios. Ultimately though, in order for peaceful co-existence to occur, the current positions of all the different levels involved need to change in some way.

Lauren Boebinger, HUX

A Beautiful, Capable Countenance: The Use of The Portrait by Female Surrealists in 1924-1944 Europe and The United States

Faculty Mentor: Kirstin Ellsworth, Art and Design

This presentation examines the female image represented within male Surrealist art as an image that is seen as a sexual object, void of intellectual thought and individual identity. The presentation also examines the way male Surrealist represented their mistresses or wives with whom they had intimate relationships and who were also Surrealist artists themselves. In addition to examining the relationships, the presentation also discusses the image of la femme and the way female Surrealists were portrayed within male Surrealist art. The female image within Surrealist art is represented as sexual objects devoid of intellectual independence. As a result, the presentation argues that as a response to the male Surrealist representation of the female image within their art, female Surrealists artists proclaim their own identity and image of strength and independence through the use of the self-portrait and portraits of fellow female Surrealist artists.

The argument is structured into four parts: male Surrealist representation of the female image, male Surrealist representation of their Surrealist mistresses or wives, female Surrealist self-representation, and female portraiture of female Surrealists. As a result of the research, the reader is presented with the idea that female Surrealist use of the portrait is significant for gaining individual identity within a male-dominated art movement. This presentation uses gender methodology and examines existing works of art and photography generated in the Surrealist movement in 1924-1944 Europe and the United States.
Brandy Brosius, Kira Condey, Ajeeta Deuja, Occupational Therapy

Chronology of Progress in Children Receiving Sensory Integration Therapy: A Narrative Analysis

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this narrative analysis qualitative study is to describe the history of improvement in seven children receiving sensory integration therapy as described by their parents and teachers. This research explored their perceptions of the progress in function made by children from admission of treatment to present. The experiences of these parents and teachers are analyzed using a narrative approach, allowing parents, teachers, and occupational therapists to understand caregivers' perceptions and responses to the use of sensory integration therapy. There were a total of seven female participants in the study that comprised of three teachers and four mothers. The narrative analysis resulted in three emergent themes of the chronology of: improved behavior and demeanor, parental implementations of activities at home, and improved social interaction, self-regulation and self-awareness. Overall, the perceptions of the caregivers revealed improvements in daily functioning at home and school as a result of participation in sensory integration therapy. The understanding of perceptions from caregivers will lead to a richer experience in therapy for the caregivers, the occupational therapist, and the child.

Leah Bruce, Kate Gilson, Jenny Hartmour, Occupational Therapy

Occupational Therapists' Decision to Work in End-of-Life Care: A Grounded Theory Approach

Faculty Mentor: Claudia Peyton, Occupational Therapy

This study constructs a theory about the decision making process that four occupational therapists engaged in when they chose to pursue end-of-life care (EOLC) as a career specialization. EOLC is defined as both palliative and hospice care for the purpose of this study. A grounded theory approach was used to analyze data gathered from in-depth interviews with occupational therapy professionals working in EOLC. Shared experiences emerged under four categories represented by the Occupational Therapy PEOP model: Personal Factors, Environmental Factors, Occupational Factors and Performance Factors. The four categories encompassed several sub-categories that emerged from the data describing processes whereby OTs arrived at a career decision to work in EOLC. The antecedents of personal and environmental factors that emerged from the participants has allowed this preliminary study to start filling in a gap in the literature as to why occupational therapists choose to work in EOLC. Participants spoke of the way that Personal Factors, such as personal beliefs and values, along with Environmental Factors, such as one's career history and education, provided them with a path that lead to specializing in EOLC. This research may contribute to our understanding of some of the reasons why occupational therapists choose to work with people who are dying instead of other client populations.
Collaboration between Teachers and Occupational Therapists in a School-Based Setting: A Phenomenology
Faculty Mentor: Claudia Peyton, Occupational Therapy

School-based occupational therapy is becoming an increasingly common area of practice. According to the Bureau of Labor Statistics (2012), elementary or secondary schools employ 17% of occupational therapists. Providing Occupational Therapy services in the classroom involves working directly with the child in need as well as in collaborative consultation with teaching staff (Villeneuve & Hitchinson, 2012). Current literature on the nature of this collaboration examines effective strategies for communication between occupational therapists and teaching staff, teacher and occupational therapist collaboration in the use of assistive devices, and integrating Occupational Therapy services into the classroom. The purpose of this phenomenological study was to explore how teachers and occupational therapists experience their professional collaboration. A qualitative approach was used to enable the gathering of in-depth information about the nature of professional collaboration between teachers and occupational therapists. Semi-structured interviews were conducted with teachers, occupational therapists, and a certified occupational therapy assistant. Access to participants was gained by fliers and snowball technique using known key informants. Eight participants were recruited for this study, three occupational therapists, one certified occupational therapy assistant, and four teacher participants. Common themes of teacher-occupational therapist collaboration emerged in the interviews within the three topic areas of perception, communication, and delivery of services. Common themes that emerged included perceived greater generalization of Occupational Therapy services in settings that were inclusion based and of younger elementary school grades, lack of formal meeting times as an obstacle to communication, and services that were pushed into the classroom versus those where the student was pulled out. Results have implications for future research to help optimize collaboration between teachers and occupational therapists to create the best possible outcome for students.

Dealing with Competition

Faculty Mentor: Natasa Christodoulidou, Management

Competition is a factor for virtually every business today in the world. Unless granted a monopoly or there are government controls, each business needs to deal with competition. Within the United States, this is considered desirable as the premise of a free market economy is that it adjusts without unfair influence.

One of the most effective tools to analyze any situation is abbreviated as SWOT-Strengths, Weaknesses, Opportunities, and Threats. This approach was developed by Albert Humphrey. Looking at virtually any question, from competition and product development to manufacturing and employee evaluations, the situation can be analyzed following these principles.

Michael Porter, a Harvard Professor, identified that existing competition rivalry is only one of five competitive forces that shape strategy. The existing barriers to entry typically determine the level of threat from new entrants. Suppliers have significant bargaining power in a number of industries. Similar to suppliers, certain buyers have substantial influence typically due to the volume of purchases made. Sometimes the competition comes from a completely different, and apparently unrelated, industry.

Companies have been tremendously successful using these analysis tools. Redbox leveraged its unique strength as a value-conscious option. Costco identified its greatest strength, volume, to sell the same products at the lowest margins. Tesla Motors identified car dealerships as an industry weakness and, therefore, an opportunity to sell direct. Southwest Airlines’ combination of low airfares, simplified operations, and happy employees dominates many markets.

Competition is a necessary evil. It has the potential to close companies, but also spur new ideas, products, and even industries. The SWOT Analysis and Porter’s five competitive forces expose the tangible factors. Dealing with competition forces everyone to improve and raises the bar on quality and efficiency. Living with competition is hard. Living without it would be harder (Samuelson, 2005).
J Bulman, P Halcrow, I Neeson O Garcia, Physics

Non-contact Ultrasound Applied to Osteoporosis Diagnostics Updated to Include Broadband Ultrasonic Attenuation and Offline Data Analysis

Faculty Mentor: Kenneth Ganezer, Physics

The CSUDH ultrasound group has taken its noncontact ultrasound research on the speed of sound and attenuation in cortical bone phantoms as presented in its initial paper on applications of noncontact ultrasound for the diagnosis and monitoring of osteoporosis further by applying broadband noncontact ultrasound spectroscopy to the diagnosis and monitoring of osteoporosis.

William Butler, Computer Science

Three Card Poker

Faculty Mentor: Mohsen Beheshti, Computer Science

There are many card games available on the World Wide Web. There are free applications, ones that cost money, and even ones that people gamble their money on. There are many card games to cover, but one that has not been covered as thoroughly is three-card poker. Three-card poker is a game that has recently become popular in casinos, and is faster paced than standard poker games such as Texas hold-em and five-card draw. This research paper will cover the history of computer gaming, discuss popular languages for game development, and my process of programming a three card poker application in the object oriented language Java using NetBeans IDE.

Andrea Casillas, Francisca Chavez, Melanie Kushida Presciliana Torres, Sociology

Single Mother's Perceptions of their Child's Well-Being

Faculty Mentor: Katy Pinto, Sociology

With divorce rates and teen pregnancy increasing, it is important to look at single parent households and child development. A single parent household once was untraditional and frowned upon, but in the twenty-first century it has become a norm. Many households are run by a single mother who plays the role of two parents, a financial provider, and a student, which can cause strain and frustration thus affecting the child. To examine perceptions and behavioral and attitude patterns, research was conducted using single and married parents with elementary school aged children (ages 4-10). Ten single and ten married parents were given a survey and asked to answer questions about their child's well-being sociably, academically, compliance, and overall relationships. Results showed that married participants, in general, had better perceptions on all of the child well-being measures. When looking at academic success, 60% of married parents reported their child's academic performance as "excellent", while 80% of single parents reported either "satisfactory" or "excellent". More single mothers rated their child's sociability in a higher perspective (50%), compared to married mothers. But all married participants rated their child's sociability on the positive side of the scale, reporting that their child either "always gets along" (40%), "sometimes gets along" (20%), or "in general, gets along with others" (40%). Results conclude that single mothers have lower perceptions of their child's academic success, ability to interact with others, ability to comply with rules, and their overall relationship compared with married mothers.
So Young (Lydia) Choi, Stacey Seidman Conchelos, Christine Ebrahim, Occupational Therapy

Health Aging within a Chorus Organization: An Ethnography of Sweet Adelines International

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this study was to describe and interpret factors contributing to healthy aging experienced by members >59 years of age who are part of Sweet Adelines International, an international women’s chorus organization. The culturally shared behaviors, language, beliefs, and lifestyles were explored and collected by using a realist ethnographic research approach. This approach allowed researchers to understand the value placed on shared experiences and patterns of this particular chorus organization by observing, detailing, describing, documenting, and analyzing the lives of women in this shared culture. Seven women were chosen to participate via purposive selection and were engaged in two semi-structured interviews. Results of the study found benefits of participation in cognitive, physical, and social domains. Implications for future research are discussed and the value of findings is related to Occupational Therapy theory and practice.

Natalie Chu, Lauren Davis, Candace Feng, Occupational Therapy

Understanding the Evolution of an Eating Disorder: A Grounded Theory Study

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this grounded theory study is to better understand the development and process those with an eating disorder experience. At this stage in the research, an eating disorder will be defined as an illness in which the victim suffers severe disturbances in their eating behaviors and related thoughts and emotions, with a focus on anorexia nervosa, bulimia nervosa, and binge eating. While there is a substantial amount of research on the symptoms of eating disorders, intervention methods, and treatments, there is a need for more insight regarding the role of occupational therapy in assisting these individuals. Research findings may benefit clients and healthcare professionals by gaining deeper insights into the individuals' experiences and the evolution of their eating disorder. The participants of this study included seven women 18 years or older that have experienced or are experiencing an eating disorder, specifically anorexia, bulimia nervosa, or binge eating. The central question of this study was, "How do those who have experienced or are experiencing an eating disorder describe living with their condition from the beginning to present?" A snowball technique was used to recruit participants and flyers were distributed at locations that provide services to persons with eating disorders. Using a grounded theory qualitative research method, the study sought to understand the participants' experiences of living with eating disorder. With a better understanding of the psychological, physiological, and social challenges these individuals face, we can reach a more thorough understanding of beneficial treatment. With this knowledge, occupational therapists and other healthcare providers may develop a deeper understanding of the challenges faced by persons living with eating disorders.
Mariela Castellanos, Johnny Gov, Psychology

Value and interpretation of Character Strengths

Faculty Mentor: Steven Frieze, Psychology

The importance of character strengths is an emerging field of study in psychological research. It is thought that the extent to which an individual appreciates her/his own character strengths may influence their behavior and the way they perceive events. This study will investigate how participants interpret their own character strengths and how much they value or ignore their character strengths. The Values in Action Inventory of Strengths is a scale that was developed to ascertain the signature character strengths of individual. Sixty college students (male and female) will take the Values in Action Inventory of Strengths (120 questions) to determine their top character strengths. They will be asked to read a short story and given time to interpret the story however they wish. After their character strengths are revealed it is hypothesized that participants will value their character strengths and see them in a positive context if the feedback they receive is positive and if they are female. Prior research has found that the environment in which a person functions has a significant impact on the manner in which a person addresses their character strengths. An individual's gender also play a strong role as well with women being seen as more kind and accessible than men.

Matthew Castellanos, Management

The first four years of college produces managers but the business world needs CEOs instead.

Faculty Mentor: Natasa Christodoulidou, Management

I'm a senior at CSUDH. Therefore, I've taken every class that is required for me to graduate and dive into the "real world". Throughout this learning experience, I've realized that the college curriculum asks students to only complete the work that is assigned and nothing beyond that. We aren't digging deeper. We aren't searching for the problems ourselves. We are only handling the problems that are directly in front of us, given to us by our professor. This is instilling a reactive personality in students. We start to expect solving a problem that a higher authority hands down to us, so when it is time to go into the "real world"; we look for manager jobs so that we can only react to what the CEO asks of us. Yet, CEOs and those who heavily influence society aren't reactive people, they are proactive. When UBER creator Garret Camp envisioned his company, he saw a problem that others didn't. He was tired of the conventional yellow taxi companies, so he created a taxi service that is unique. UBER cabs are typically high-end vehicles, which allow you to play your own music, drink if you'd like, and most conveniently it connects to an app on your phone that syncs directly to your credit card. Today, UBER is a 3.5 billion dollar company and reactive pedestrians are finding it very difficult to stay with yellow taxis, they now see the problem that Garret Camp saw 3 years ago. This presentation isn't about UBER, this is about challenging the college experience. The business world will only expand if we produce more proactive people, because reactive people are expendable.
**Student Research Day 2014 - Abstracts**

**Mario Castillo, Anthropology**

The Chichimeca Archive Project: A Novel Approach the Colonial Experience of Indians in North America

Faculty Mentor: Janine Gasco, Anthropology

This presentation shows how terminological ambiguities can both misrepresent native groups and mask the impact of European colonialism. Here I focus on the Aztec term Chichimeca, which was used by Spanish chroniclers to generally describe native nomadic people who were living in North-Central Mexico during the 16th century. I argue that prior scholarship masks the impact of Spanish colonialism with regard to the Chichimeca people by treating them as a homogenous group, which has thus led many to believe that "Chichimeca" is an ethnic rather than a legal and political category. Moreover, I find the opportunity to incorporate material evidence to create active tension with the historical accounts of the Chichimeca. This presentation proposes the Chichimeca Archive Project (CAP). The CAP will add unpublished archaeological material to the published ethnohistorical literature and to present it from a Postcolonial perspective. In doing so, CAP aims to destabilize the common historical narrative on the Chichimeca by contrasting Chichimeca-related documentary evidence with material culture.

**Mario Castillo, Anthropology**

Using Remote Sensing to model Deforestation: The View from Soconusco, Chiapas, Mexico. Faculty Mentor: Janine Gasco, Anthropology

This presentation explores the recent history of agriculture and its impact on forest in Soconusco region of Chiapas, Mexico though the analysis land-cover change. Within the last 50 years, substantial population growth, urbanization and shifting economic policies towards agricultural practices based on mechanization, industrial pesticides and monocropping has reduced forested areas in the region. To model deforestation we use aerial photography and Landsat MSS, TM, ETM, OLI/TIRS to classify forest from non-forested areas. Our analysis shows that there has been significant amounts of deforestation due in part to population growth, but recent data reveals a minimal amount of reforestation that we posit may be result of migration to cities or foreign countries.

**Melissa Cervantes, Omar Gomez, Corina Diaz Ashley Chrisakis, Georgina Garrels, Sociology**

Faculty Campus Climate Survey

Faculty Mentor: Clare Weber, Sociology

The purpose of the study is to assess the attitudes and perceptions of CSUDH Faculty and their satisfaction with regards to working conditions and promotional opportunities. The extensive ethnic diversity of the campus will also be investigated. According to Mayhew, Gruwald, Dey (2006) there is an acknowledged importance for diversity within a campus, but at times it can be unclear as to what influences lead towards a more positive diverse environment. They go on to state that a way to examine the positive diversity climate is through four specific domains: the history of the campus concerning race and ethnicity, structural diversity, and both psychological and behavioral climate. Addressing selected domains within CSUDH has the potential benefits of improving working environment for faculty. A voluntary online survey will be distributed to all part-time and full-time professors and instructors. The survey will address the following domains: satisfaction, department life, working conditions/safety, diversity, research/creative project issues, and personal advancement/professional development/mentoring. The survey is completely anonymous and should take no more than one hour to complete. A preliminary study conducted in the spring 2012 semester has shown the need for faculty to voice their opinion on various domains that will be covered in this questionnaire. It is expected that the findings will generate campus awareness, discourse, and the potential implementation of policies that can improve the campus experience for faculty. The presentation will also address how the study was organized as a multidisciplinary investigation and the experience of students’ participation in a policy driven research process.
A Qualitative Study of Korean Elders and Community Participation

Faculty Mentor: Claudia Peyton, Occupational Therapy

Elderly Korean immigrants are one of the fastest growing populations in the U.S. (Lee & Yoon, 2011). According to Lee and Yoon (2011), in the U.S., "from 2000 to 2025, the Asian elderly population is assumed to increase by 246 percent while the elderly white population increases 73 percent" (p. 269). In addition to the increasing number of Korean elders in the U.S. there are also findings of higher levels of depression among elderly Korean immigrants than any other Asian immigrant group (Lee & Yoon, 2011). According to Kim (2013), consistent contact with friends is more vital in preventing depression in Korean elders rather than frequent contact with family. Cultural circumstances as this indicate a need to further study and understand Korean elders' experiences and values in their participation in community-based activities so healthcare practitioners can help Korean elders age well while being culturally sensitive. The purpose of this study was to explore Korean elders' experiences of their participation in community-based activities. The experiences of seven Korean elders sixty-five years and older attending Joy Adult Day Health Care (JADHC) were explained through in-depth interviews and observations. Participants were recruited and analyzed using an emic perspective of the ethnographic approach. The following themes emerged as a result of this study: health, connection to others, comfort/appreciation of the same culture, and enjoying oneself. Occupational therapy involving the elderly population should focus on enhancing social participation within the community while being sensitive to the clients' cultures. This study allowed the researchers insight into Korean elders' value and ability to be part of an activity-based community and occupational therapy practitioners to provide effective interventions. Future research at different Korean and non-Korean centers would be beneficial to occupational therapy practitioners in development of programs for well elders.

Casey Cho, Health Science

Intrinsic and Extrinsic Motivation: Comparing Relative Strength in Relation To Parental Support and Control

Faculty Mentor: Enrique Ortega, Health Science

Previous studies have confirmed that both extrinsic and intrinsic motivation have been associated to high academic achievement among adolescents. In addition, some studies have shown that academic achievement is consistently high when intrinsic motivation is associated to strong parental support. This study investigated the potential mediating role of supportive and controlling parenting in the association between intrinsic and extrinsic motivation and academic achievement.

The sample consisted of 302 Italian high school students adolescents (48% female), ages 15-19 (mean age= 17.4 (S.D. = 1.4)). The participants were representative of the population of adolescents attending high school in the North Western of Italy. This investigation employed secondary analysis investigative methods and used linear regressions to explore the associations among our variables of interest.

Results indicated that stronger parental support was associated with increased student intrinsic motivation (B = .121, p < .01) and that intrinsic motivation was associated with academic performance (B = .211, p < .001). No direct significant associations were found between parental support and academic achievement.

While studies have shown that the associations of motivation and academic achievement may be mediated by different parenting styles, this study did not confirm any direct effects of parenting on academic achievement nor indirect effects through motivation. We did however find that different parenting styles were associated only to one type of motivation. These types of findings can help prevention scientists better tailor interventions aimed at increasing academic achievement by addressing the type of parenting that the student is receiving in the home.

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Brenton Cojerean, Rachel Eriguel, Psychology

The Effect of an Interrogator's Race on a Suspect's Perceived Trust

Faculty Mentor: Carl Sneed, Psychology

During the process of a criminal interrogation, investigators may utilize a strategy that entails gaining a suspect's trust in order to obtain a confession. Due to the literature that has demonstrated that racial and ethnic diversity impedes the development of trust, and minorities have negative impressions of law enforcement, the present study sought to examine if there is a race interaction during interrogations that obstructs the development of trust. In other words, is trust likely to be hindered when the detective and suspect are from different racial backgrounds? Participants of this study were asked to rate the detective in vignettes that depicted an interrogation between a Caucasian detective and Caucasian suspect or a Caucasian detective and Asian suspect. The detective's ratings from both scenarios were then compared. Despite the literature on racial and ethnic trust and minority's perception on law enforcement, results of this study did not find a race interaction in the vignettes. This suggests that the detective's race does not have an impact the suspect's ability to trust the detective during an interrogation.

Peri Coke, Sociology

The Law, The Mother, The Child

Faculty Mentor: Kara Dellacioppa, Sociology

This paper discusses intimate partner violence and the influence it ultimately has on children exposed to domestic violence and how to combat the effect the abuse has on children raised in this environment. The research offers guidelines for clinicians when reporting domestic violence or intimate partner violence. Research indicates the need for a judicial system that advocates for the mother and her children. Finally, this paper offers the importance of comprehensive programs in battered women's shelters that emphasize a child-centered component.

Ermelinda Concha, Negotiation, Conflict Resolution and Peacebuilding

Elimination of Nuclear Weapons in Syria: The Importance of Saving Face in Negotiations

Faculty Mentor: Margaret Manning, Negotiation, Conflict Resolution and Peacebuilding

In August 2013, a chemical weapons attack occurred around Damascus that killed more than 1,000 Syrian civilians. President Obama threatened military action against Syrian President Assad for crossing "a red line" in the ongoing civil war. Obama and Assad faced each other down to see who would blink first. Humiliation is a powerful reason to fight and even die to protect a physical, social or cultural identity. An offhand remark by Secretary of State Kerry opened the door for Putin of Russia, an Assad ally, to mediate negotiations so both parties could back off without losing face, i.e. "build them a golden bridge." Two major international organizations are involved, the Organization for the Prohibition of Chemical Weapons (OPCW) to eliminate the chemical weapons, and UNICEF to oversee humanitarian aid for the Syrian survivors and their families. In the last few months the rebel factions fighting Assad's troops have been reduced to infighting that has become a public relations windfall for Assad's regime. A peace conference is scheduled in Switzerland on January 22, 2014 with all parties invited to attend including international agencies, Kerry and his Russian counterpart, Assad, and the leaders of rebel factions. The predictions are that Assad will be unlikely to negotiate his own exit and that rebels may boycott the meeting to humiliate Assad. It has been proposed that the U.S. encourage Iran and Russia to abandon support for Assad. Another alternative has been floated that the U.S. should support Assad because he would provide more stability than any of the alternatives. This has been decried as hypocritical and would "set a dangerous example." However, in light of the Iraqi aftermath, it is an alternative worth exploring, provided the U.S. can save face again.
James Crawford, Philosophy

Hip-Hop Culture and the Perpetuation of Economic Inequality

Faculty Mentor: Dana Belu, Philosophy

Mainstream Hip-Hop perpetuates images of African Americans as inherently violent, materialistic, and deviant. Hip-Hop is the most visible public platform and commercial representation of African American communities today. The harmful representations of African American culture portrayed in mainstream Hip-Hop perpetuate deficit perspectives held by working-class white Americans. Within such deficit perspectives, working class white Americans view the black community as a group deserving a life of poverty rather than an ally in the struggle toward economic equality.

The purpose of this presentation is to explore current mainstream Hip-Hop culture as a product of the history of racism in the United States stemming from slavery. With support by the work of Michelle Alexander, Andrew Barlow, and Cornel West, I will argue that representations of African Americans in Hip-Hop reflects the modern version of white supremacist ideology sustained by, what legal scholar Reva Siegel termed, preservation through transformation. The history of racism in the United States will be traced from slavery, through the Jim Crow era, civil rights era, and into Hip-Hop culture as part of, what Michelle Alexander described as, The New Jim Crow era.

Ultimately, racist perceptions have been used historically (i.e., Minstrelsy) and repackaged in Hip-Hop culture as a primary means of justifying the inherent inequality of American corporate capitalism. This systematic, socially structured injustice necessitates a complicit white working-class that ignores its precarious socioeconomic status while condemning poor people of color. Thus, poor and working-class whites have been socialized into a capitalist ideology that condemns them to continued economic exploitation. The exploration of Hip-Hop culture, as a product of racism in the United States, is a step toward dismantling deficit frameworks of African American communities that prevent white and black workers from uniting in resistance to economic exploitation by the capitalist elite.

Kevin Daley, Computer Science

The use of a Raspberry Pi in control of an AUV Ballast System

Faculty Mentor: Antonia Boadi, Computer Science

The Raspberry Pi is an excellent piece of computing hardware for controlling the various systems present in robotics projects or autonomous systems, particularly autonomous underwater vehicles (AUVs). The ballast system will be operated by a Raspberry Pi since it can offer more efficient control—such as regulating the amount of released CO2 for buoyancy changes—over the AUV. While other methods of producing cost-effective robotics solutions such as Arduino circuit boards offer more convenience in developing these robotics projects, they have limited capabilities. The following conducted research will explore the efficiency and proper utilization of a Raspberry Pi as a method to control the ballast system of an AUV.
Vernadine De Jesus, Jazmin Escalante, Kazlen Christy Nicole DeSimone, Lyndsay Roman-Castelo, Psychology

Relationship Satisfaction in Online vs. Offline Dating

Faculty Mentor: Kyran Barr, Psychology

With the emerging prevalence of individuals searching for love through online dating sites, the scientific community has taken a special interest in finding out how it compares and differs to traditional dating. There tends to be a heavy reliance on physical attraction when it comes to choosing a romantic partner, but online dating promotes intimacy characterized by trust and willingness to disclose information that connects individuals on a deeper emotional level. Research has indicated that online dating users can achieve higher levels of self-disclosure at a faster rate than traditional daters which can result in higher levels of relationship satisfaction. To a certain degree, online dating has replaced the failures of relationships that start from bars, clubs, and blind dates. However, although online dating and traditional dating has been compared numerous times, minimal research has been done to support the notion that lengths of previous relationships predict satisfaction levels in new romantic partners. This study explored the effects of meeting location in terms of online and offline venues on relationship satisfaction. All the while, this study took a special interest in finding out if lengths of previous relationships and different meeting venues also played a role in any way with levels of relationship satisfaction. With a convenient sample size of 137 participants from California State University, Dominguez Hills, four vignettes, along with the Hendricks Relationship Assessment Scale (RAS) were administered and assessed to reflect each level of conditions. Results from this study indicate that meeting venues and previous lengths of relationship may not be an important indicator in relationship satisfaction. However, the researchers of this study suggest that certain limitations must be taken into consideration. For example, due to a convenient sample size, the demographics and ages of the participants were not very diverse. Due to the limitations implicated by the convenient sample size, further research involving a larger sample with a more diverse population could yield favorable results to the research hypothesis.

Vernadine De Jesus, Psychology

Personality on Parent Child Communication About Sex in African American and Hispanics

Faculty Mentor: Carl Sneed, Psychology

Familial relationships and characteristics contribute to an adolescent's sexual behaviors. In order to establish structure for open communication, parental control must be established. Past research indicates that parent-child communication likely contributes to multiple sex partners that lead to unsafe sexual behaviors. As a result, in order to avoid discussing about contraceptive usage, communication between African American and Hispanic mothers and their children tends to focus on the negative aspects of sex (Sneed, 2008). This research dissertation aims to retrospectively examine personality, particularly Agreeableness in the Big Five traits and parent child communication about sex in African American and Hispanics. The goal of this study is to understand how Agreeableness in the Big Five Traits of personality influences parent-child communication about sex. Specifically, the intent of this study aim to measure the content of frequency of communication not just on parent child communication about sex, but rather, the child's receptivity to the topic. This study is needed because there is a lack of research that encompasses the overall parent-child communication about sex focusing on personality, particularly in Agreeableness traits of parent-child communication about sex. Moreover, future researchers will have the opportunity to take this study further to examine the remainder personalities with regards to factors associated with sex. The sample consisted of 141 females and 42 males ranging from 18 -50 years of age with a mean age of 23. Results show that the correlation between the Big Five Traits of Personality and parent-child communication between mothers and fathers about sex are significant. The correlation between the Big Five and parent-child general communication also yielded significant results. Some of the survey packets were eliminated due to the fact that the participant's demographics did not match the ethnic criteria. Also, some packets were eliminated due to participants not answering portions of the survey. Regardless of these setbacks, the results of the study were still significant. For future references, it would be interesting to see what this study would result in just by changing the ethnic criteria of the overall experiment.
Napoleon De La Cruz, Grecia Chacon, Clinical Science

Development of Targeted Cancer Therapeutics using tagged Chlorambucil Complexes

Faculty Mentor: Teili Wang, Chemistry & Biochemistry

Alkylating agents such as chlorambucil have been used to treat a variety of cancers such as lymphoma and ovarian cancer. This type of drug crosslinks DNA and thereby prevents cells from dividing. However, a drawback of these drugs is their lack of selectivity to target specific cancer genes. Here we use a novel approach to tag an alkylating agent, chlorambucil as an example, to a siRNA oligo nucleotide generated from human Peroxiredoxin (Prx) II gene. In previous work, we have shown that PrxII- small interfering RNA (siRNA) can be used to turn off PrxII expression, a gene overexpressed in radio/drug resistant cancer cells. The current project will test the hypothesis that an alkylating agent-siRNA complex can synergize the potency to kill specific cancer cells due to the targeting property of siRNA and the cross-linking ability of alkylating agent. We started to react Chlorambucil with a single nucleotide cytidine. A coupling reagent DCC (N,N- dicyclohexylcarbodiimide) was used to optimize the reaction condition. Our result showed that the anticipated reaction was not the major reaction in the reaction mixture using column chromatography, HPLC-MS and NMR spectroscopy. It is likely that the side reactions produced by hydrolysis of Chlorambucil and the reaction of Chlorambucil with other heteroatoms of the cytidine especially N3 of cytidine were not minimized. The further study will be pursued under the improved anhydrous condition.

Cesar Deleon, Chemistry and Biochemistry

Synthesis of [7.7] Para-Cyclophane Tetra-peptide Macrocycle

Faculty Mentor: Kenneth Rodriguez, Chemistry and Biochemistry

According to the Center for Disease Control and Prevention, every year about 715,000 Americans have a heart attack. Moreover, about forty-nine percent of Americans have at least one of the three risk factors: high blood pressure, high Low-Density Lipoprotein (LDL) cholesterol, and smoking. Interestingly, seventy-one million American adults have high levels of LDL. Therefore, one way of reducing the number of heart attacks that occur every year is to develop a drug that could efficiently lower the levels of LDL. In this oral presentation, I report the synthesis of [7.7] Para-Cyclophane Tetra-peptide Macrocycle. The macrocycle, which is originally derived from a species of Streptoverticillium, showed a promising ability to lower LDL levels; however, the presence of phenyl esters made the macrocycle highly labile to ring opening hydrolysis; thus, resulting in the loss of biological action. We addressed this issue by replacing the phenyl esters with phenyl amides. The synthesis of [7.7] Para-Cyclophane Tetra-peptide Macrocycle involved the use of protective chemistry, reduction, palladium catalyzed hydrogenation, and macro lactamization to go from my starting material 4-nitrophenyl alanine to the final tetra-peptide macrocycle. Overall, the product was produced at a ten percent yield and in seven steps. Our collaborators at Novartis are currently testing the hydrolytic resistance of my product, and its ability to lower low-density lipoprotein levels.

Meera Desai, Biology

Key pathways in nicotine plus high-fat diet induced hepatocellular apoptosis

Faculty Mentor: Helen Chun, Biology

Cigarette smoking is the leading preventable cause of death and disability worldwide. In fact, smoking is a major risk factor for diabetes, cardiovascular disease, chronic obstructive pulmonary disease, and lung cancer. There is also significant evidence that smoking also contributes to non-alcoholic fatty liver disease (NAFLD). The health risks associated with smoking are exaggerated by obesity, which is the leading causes of morbidity and mortality worldwide. We recently demonstrated that combined treatment of nicotine and a high-fat diet (HFD) triggers greater oxidative stress, activates hepatocellular apoptosis, and exacerbates HFD-induced hepatic steatosis (Endocrinology 153: 5809-5820, 2012). Given that hepatocellular apoptosis plays a pivotal role in the pathogenesis of NAFLD, we used this model of hepatic steatosis to elucidated the signal transduction pathways involved in HFD plus nicotine-induced liver cell death.
Corina Diaz, Juliana K. Soto, Sylvia Thomas, Sociology

CSUDH Student Advising Experiences

Faculty Mentor: Clare Weber, Sociology

This study investigates students’ advising experiences at California State University, Dominguez Hills (CSUDH). The focus question is whether student retention and success is influenced by their advising experiences. To obtain data and answer this question, we conducted survey research and focus groups on which undergraduate students expressed their advising experiences. The categories to measure the student's academic advising experiences include: (1) establishing first a common definition for advising; (2) obtaining information to assess the university’s role and priorities for student success in relation to advising; (3) acquiring information to evaluate if there is a relationship between student advising experiences at CSUDH, and retention as well as success; (4) exploring the facts that would allow mapping students advising experiences from initial enrollment to graduation; and (5) obtaining data to assess the need for special advising procedures to address particular needs that students might have. The results indicate that to evaluate student's advising experiences, there is a need to establish the common definition for advising across CSUDH. There is also a need to outline the university's priorities to determine how funding will be distributed to achieve effective and efficient advising services to students according to their needs. Furthermore, the results suggest that student-advising experiences can influence not only student retention but also recruitment.

Corina Diaz, Sociology

Borrowed Space: Perceptions of Chronic Homelessness in Long Beach

Faculty Mentor: Jeb Middlebrook, Sociology

Chronic homelessness is an issue in the city of Long Beach California. Recent homeless count data reveals that there are over 1,000 individuals suffering chronic homelessness in the city (Long Beach Homeless Count 2013). This quantitative study was developed to research the perceptions of chronic homelessness in the city of Long Beach to understand collective thinking, and public opinion about the issue. Two hundred residents participated in this research study. The categories to measure the perceptions about the chronically homeless population include; (1) general awareness; (2) geographic proximity; (3) cause for homelessness; (4) chronic homelessness as a problem; (5) chronically homeless policy; (6) city responsibility; (7) community responsibility; (8) public communication; and (9) community activism. The results indicate that there is a need to increase the levels of awareness about the issue of chronic homelessness; there is also a need to support advocacy for community involvement through volunteerism, and activism. Furthermore, there is a need to improve public communication practices to efficiently and effectively promote chronic homelessness prevention in the Long Beach community.

Corina Diaz, Sociology

Beyond Illegal Dumping: A Study in Long Beach, California

Faculty Mentor: Clare Weber, Sociology

This study was designed to investigate the frequency of illegal dumping behavior in a zone known to have high poverty concentration in Long Beach. The fieldwork was conducted in the summer of 2013. The data collection was accomplished through non-obtrusive observation which included the completion of 404 logs, and collection of over 1,000 photos. The categories to measure this behavior include: (1) universal waste; (2) home generated sharps; (3) hazardous waste; (4) mechanic parts; (5) office items (6) recyclables; (7) electronic waste; (8) furniture; (9) home maintenance; and (10) packaged food waste. The results indicate that furniture, and electronic wastes have the highest percentage of discard by people. Furthermore; the data recorded in memos during observations suggest that there is a need to look at this dynamic beyond illegal dumping behaviors to be able to revise policies to delegate responsibility between the city, the residents, business owners, and landlords.
Olivia Edmondson, Stephanie Pegan, Stephanie Ussery, Occupational Therapy

Teacher Preparedness in Collaborating with Occupational Therapists in Classrooms for Students with Emotional and Behavioral Disorders

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this study is to explore how occupational therapists collaborate with and prepare teachers of inclusive classroom settings to work with students who have emotional and behavioral disorders (EBD). The experiences of three general education teachers and three occupational therapists were explored using in-depth, semi-structured interviews and analyzed using a phenomenological approach. The interviews allowed researchers to understand commonalities and/or differences in the lived experiences of occupational therapists and teachers working in an inclusive school setting with students who have emotional and behavioral disorders. Four themes emerged from the research: 1) disconnect in the understanding of roles; 2) occupational therapy as a support for classroom involvement; 3) impact of time; and 4) suggestions and strategies for improved collaboration. An overall lack of awareness was discovered amongst teachers in regards to occupational therapists’ role in the classroom. Furthermore, teachers associated occupational therapists with treatment of fine motor skills, but not behavioral interventions, and reported feeling unprepared to handle more difficult situations in the classroom. Though all participants believed a collaborative approach to be best, all also agreed that the ideal collaborative relationship is difficult to achieve due to many different barriers.

Gerald Eisman, Chelsea McElwee, Walter Lopez Victoria Moss, Psychology

Relationships Among Ethnicity, Early Childhood Factors And Neuropsychological Test Performance Faculty Mentor: Tara Victor, Psychology

Neuropsychologists conduct cognitive-linguistic assessments to evaluate which areas of the brain are preserved and which have functional impairment. The Boston Naming Test (BNT) is used to assess confrontation-naming and consists of simple line-drawn pictures. Because clinicians use the BNT for identification of mild deficits they must take into consideration factors (other than neuropsychological compromise) that can influence performance. The present study examined the extent to which performance differences by ethnic group on the BNT are better accounted for by the number of early childhood resources offered at home and school. It was predicted that the Caucasian group would outperform the Hispanic/Latino group on the BNT, and that this difference would be partially explained by the number of early childhood resources reported by ethnic group. Participants were neurologically and psychologically healthy undergraduate students who were administered a comprehensive neuropsychological test battery that included the BNT. Groups were equivalent with respect to education, gender and age. An independent samples t-test revealed significant performance differences by ethnic groups with Caucasians outscoring Hispanic/Latino students on the BNT. Significant differences were also found by ethnic group with respect to early childhood resources offered in the home and school: the larger the number of activities offered was positively correlated with scores on the BNT. Linear regression analyses indicated that once early childhood resources were taken into consideration, no group performance differences remained. Results of this study highlight the impact of cultural and individual difference variables on neuropsychological test performance. Relying solely on the comparison of individual performance with norms developed from a primarily Caucasian population leads to inaccuracies in interpretation (Romero et al., 2009). Future studies should concentrate on using multivariate methods of data analysis with large representative samples.
Geraldy Eisman, Griselda Bernabe, Julia Ramirez Aaron Street, Psychology

The Effects of Social Comparison and Self-Activation on Positive Affect

Faculty Mentor: Steven Frieze, Psychology

Several factors that contribute to an individual's healthy living, including self-efficacy, social support, and self-esteem, have already been identified (Wand & Castaneda-Sound, 2008). Evidence suggests that people use social comparison not only to evaluate their opinions and abilities but also to maintain their self-esteem. Social comparison influences management of emotions, which may be altered through self-activation (Aspinwall and Taylor, 1993). The self-activation theory suggests that activating the self is sufficient to increase social comparison tendencies (Trampe, Stapel, & Siero, 2011). This study explores the relationship between social comparison and self-activation on positive affect. Previous studies have explored the relationship between social comparison and self-activation on other aspects of the self, such as their effect on self-esteem, but little is known about their interaction and effect on an individual's affect. Accordingly, it has not been researched how the direction of self-activation plays a role in inducing positive affect. A sample of 40 undergraduate students will participate in a self-activation exercise prior to being exposed to a social comparison scenario. Participants will be randomly assigned to one of four conditions in which they will be exposed to self-activation (positive or negative) and social comparison (upward or downward). Participants will then complete the Positive and Negative Affect Scale (PANAS) in order to gauge how the conditions affected their affect. It is hypothesized that participants in the positive self-activation and downward social comparison condition will report higher positive affect than those in the other conditions. It is further hypothesized that individuals exposed to upward social comparison and who are self-activated by a negative prompt, will have the least positive affect. Insight gained from this research could be used to find ways to help individuals deal more effectively with the affective ramifications of the phenomenon of social comparison.

Daniel Ennaco, Rebecca Darden, Dwayne Johnson, Psychology

Psychological Measurement of Empathy: A Correlational Study in the Field of Nursing

Faculty Mentor: Kyran Barr, Psychology

In order to understand what factors lead to empathy there must be an understanding of what empathy is. Empathy has been defined in relevant research as the ability to see the world from another's viewpoint (Grief & Hogan, 1973). Additionally, empathy is the ability to see from the perilous perspective of those in need (Holm, 1997). That being said, there has been much research supporting the idea that empathy is not only a part of one's life, but more importantly a crucial character trait that can guide one's life in a positive manner (Barrett-Lennard, 1962, Gladsteine, 1987).

Our study examined the effects of level of education and vignette type on empathy level. Graduate students (N=62) and undergraduate students (N=63) currently enrolled in the nursing program at California State University, Dominguez Hills (CSUDH) were surveyed and compared. The Questionnaire Measurement of Emotional Empathy (QMEE) was used; along side a custom-made vignette scenario. We predicted that the longer an individual works in the field of nursing, the lower their empathy score would be regardless of the vignette type they receive (self induced or not self induced). Our hypothesis directly relates to popular research on the matter stating that burnout rate and desensitization is high among the helping fields (Bass, 2001, Austin et al. 2009). However, the data collected does not support our hypothesis. Undergraduate students were found to have lower empathy scores than graduate level nursing students, suggesting that empathy score may not be negatively affected by the amount of time one works as a nurse. This research will contribute to the limited knowledge on how empathy can enhance or hinder positive outcomes. Moreover, if researchers can pin point what factors hinder empathy growth in individuals, training programs could be created that would help nurses overcome such factors.
A Fat Chicana's History: Reclaiming Social Constructs of Body Image, Sex, and Abortion

As a Chicana I have been marginalized a majority of my life; I am fat, tall, light skin, sexually liberal, and have had an abortion. Through my testimonio (Saavedra, Perez, 2012) I examine the social constructs of body image, sex, and abortion as a woman of color, and more importantly how societies' impositions of these themes have been "colonizers" (Memmi, 1967) and "oppressors" (Freire, 1970). In challenging the majoritarian mind frame, I not only challenge the academy, but also challenge the paradigm of said margins instead as liminal. By reclaiming this liminal story as "cultural intuition" (Delgado Bernal) and "cultural wealth" (Yosso, 2005) I refute the notion that self-reflection as a study is a "place where people throw us to die" (Benavides Lopez, 2013). Using critical race theory, (LatCrit and FemCrit) I document putting my story, my research, and myself together (Anzaldúa, 2002) in a digital testimonio where poetry, self-reflection, interviews, and vignettes of my personal struggle are expressed.

California Prison's Isolation Units: Tantamount to Torture?

The California Department of Corrections and Rehabilitation (CDCR) is the largest state-run prison system in the U.S. It houses more than 165,000 adult offenders and 3,200 juvenile offenders. Experts estimate that 10,000 inmates are in isolation units where prisoners with gang affiliations can be held indefinitely. This practice led to the U.N.'s lead torture investigator, Juan Mendez, to request access to California prisons to ensure that prisoner's rights were being protected in May, 2013. During the summer of 2013 inmates at Pelican Bay State Prison organized a 60-day prison hunger strike that spread to 29,000 inmates and became the largest hunger strike in the history of California prisons. Amnesty International supported the hunger strikers and stated that "conditions for prisoners in solitary confinement in California are an affront to human rights and must end." By August, 2013 dozens of striking prisoners had been hospitalized with 118 prisoners having fasted continuously since July 8, 2013. Prison doctors expressed concern over the striker's potential health risks. On September 3, 2014 state lawmakers agreed to hold public hearings on the conditions in its maximum-security prisons and the use of long-term isolation which led to the end of the hunger strike. The CDCR maintains that its isolations units are not the same as solitary confinement. However, U.N. investigator Mendez is concerned that prisoners kept in their cells more than 22 hours per day for months or even years is tantamount to torture under the U.N. Convention against Torture (CAT) guidelines, which incidentally has been ratified by the U.S. To date Mendez is still waiting permission from the U.S. State Department and California State Governor Brown to inspect California prisons. Meanwhile, the U.S. continues to participate in the rewriting of the U.N.'s rules for the treatment of prisoners.
Ronald Farol, English

Composing With New Media

Faculty Mentor: David Sherman, English

Literacy has long been associated with the ability to read and write traditional print based texts. As the Internet continues to flourish, new forms of media are emerging, and these new media, because they are multimodal, require one to be literate in not only print based texts but in visual, audible, and even spatial texts as well. As new media continues to change and expand the current textual landscapes our students frequent in and outside of the academy, a pedagogy that focuses on both the analysis and composition of new media in composition classrooms is necessary if we want our students to not only be multi-literate consumers of information but producers as well.

While students use new media, many are not fully conscious of how new media texts shape their own literacies. Anne Wysocki defines new media texts in her essay "Opening New Media to Writing," as texts composed by people who are aware of and bring out the "materialites of texts." After explaining her definition of new media texts, I will introduce the concept of appropriation taken from Jeff Rice's book The Rhetoric of Cool:

Composition Studies and New Media. Appropriation can be used as the basis for understanding a multimodal composition using new media texts, and a student who is conscious of appropriation often demonstrates critical thinking and awareness of how different mediums not only shape texts but one's literacies as well.

I will then play a few minutes of one of my multimodal compositions, which utilizes appropriation and new media texts. My work should illuminate how writing with new media can be engaging and relevant to both composer and reader and how writing with new media not only gives students agency in composing with literacies they already have but opportunity to build upon these literacies as well.

Alisha Fletcher, Health Science

The Association Between Weight, Physical Attractiveness and Mental Health among Italian and Dutch Adolescents

Faculty Mentor: Enrique Ortega, Health Science

Perceptions of physical attractiveness and body shape have long been tied to issues of self-esteem and depression. This investigation aimed to better understand the gender differences that may exist among these associations among a sample of Italian and Dutch adolescents. European culture has had a long standing preoccupation with physical attractiveness and body shape. Nonetheless Europe has quickly become a nation that is struggling with increasing BMI scores among the youth population. This study attempted to understand how such rise in scores is affecting perceptions of physical attractiveness and related mental health indicators.

Methods: The sample consisted of 510 Italian and Dutch adolescents, living in the northwest of Italy and the northeast of The Netherlands, and was reasonably balanced for country (52% Italian, 48% Dutch), gender (48% female), age (mean age = 17.4 (S.D. = 1.4)). Bivariate correlations were used to explore the associations of among our variables of interest. This investigation employed secondary analysis investigative methods.

Results: Among Italian males level of physical attractiveness was found to be positively correlated with self-esteem \( r = .501, p < .001 \). This same association was found among Dutch males \( r = .364, p < .001 \). No associations were found with BMI. However, higher BMI scores were associated with negative perceived attractiveness \( r = -.286, p < .001 \) among Italian females; this was not so among the Dutch. Lower perceived attractiveness in females was also related to higher depression reports \( r = -.227, p < .001 \)

These results show clear gender and country differences on the mental health effects of BMI scores. There seemed to be much greater preoccupation of weight concerns among females to the point of demonstrable effects of self-esteem and perceived attractiveness. These results show the need to better understand the causes of such associations to best develop prevention efforts aimed at bettering mental health objectives while taking into account weight related concerns.
Leah Fry, Justine Escobar, Debby Askarinam, Occupational Therapy

Living with Chronic Pain: A Phenomenological Study of Individuals with Rheumatic Conditions

Faculty Mentor: Claudia Peyton, Occupational Therapy

Rheumatic disorders are painful conditions usually caused by inflammation of the joints or muscles. The purpose of this study is to understand the lived experience of chronic pain associated with rheumatic conditions, focusing primarily on juvenile idiopathic arthritis, rheumatoid arthritis, and osteoarthritis. Treatments available to those living with chronic rheumatic conditions often do not provide relief and little research has been done regarding efficacy of alternative treatments. This study sought to explore the lived experiences of seven individuals dealing with chronic pain associated with rheumatic conditions using a transcendental phenomenological approach. The research resulted in common themes discussed by participants including physical effects of their rheumatic condition and emotional effects of coping with chronic pain; with emphasis on feelings of frustration and fears of what the future will bring. Participants also discussed coping strategies, including varied individual coping methods and the benefit of having a social support network. Participation in activities was another theme, and participants emphasized feeling limited by their pain, despite having the desire to participate in activities. Many participants discussed negative experiences with medical care that led to frustration. The results of this study indicate the considerable impact that chronic pain has on the daily lives of those with rheumatic conditions, the importance of developing effective coping strategies on an individual basis, and the importance of occupational balance and adaptations to enhance participation. Occupational therapists may often find themselves working with individuals who suffer from chronic pain; this study can help to give insight to the lived experience of these individuals.

Danielle Frye, Africana Studies

Where Do We Go From Here: Contemporary Civil Rights Movement

Faculty Mentor: Maurice Claybrook, Africana Studies

This paper examines the necessity of conceptualizing the Civil Rights Movement as a movement that has extended into the present. I explore how many of the struggles of the 60s continue to be present. I examine the life and political commentary and support by key celebrity figures that use their celebrity status towards the attainment of civil rights. Harry Belafonte and Bill Cosby are celebrities who use their fame to improve the lives of people of African descent. These icons are reaching back, educating youth and attempting to empower African American communities, which are important for survival of the culture. Belafonte participated in the Civil Rights Movement of the 1960s and continues to be public and present in contemporary struggles. Cosby, offering his own commentary to contemporary social conditions, argues the Civil Rights Movement still exists today. Many of the same rights that were being fought for in the 1960s are still being fought for today, such as justice, equality and an end to discrimination with the government and education. While the civil rights of yesterday and today is the larger picture, we can look to people of power and privilege, such as Belafonte and Cosby, who witnessed discrimination and injustice first-hand and strived for awareness of inequality. Belafonte and Cosby have urged youth and adults to become aware of how they are viewed by the world and how they should be viewed. Since people of African descent remain in a civil rights movement, it is important to make changes to progress. Studying the Civil Rights Movements of today compared to that of yesterday through the eyes of public figures, will contribute to the existing discourse by highlighting examples of people of African descent who are affluent, and use their social position for the advancement of African Americans.
Olivia Garcia, Alexander Puyot, Kinesiology


Faculty Mentor: Scott Cheatham, Kinesiology & Recreation

Pulse oximetry has become mobile with the advent of smartphone and Bluetooth® wireless technology. This technology offers many benefits but has not been extensively studied. There is a need to further validate its clinimetric properties in order for health professionals to provide proper guidance to patients. Design: Observational study of reliability Setting: University kinesiology laboratory. Participants: 30 healthy, active adults (Men-18, Women-12, 25.7±5.46 years of age, 170.3cm ±9.51 of height, and 76.4kg ±19.33 of body mass) Intervention: Resting measurement of arterial blood oxygen saturation (SpO2) and pulse rate using the iSPO2® pulse oximeter with the iPad® mini and a traditional pulse oximeter with Bluetooth®. Main Outcome Measure: Average resting SpO2 and pulse rate were concurrently measured with both devices over 5 minutes. Results: The concurrent validity between the iSPO2™ and traditional pulse oximeters was good for measuring SpO2 (ICC 3,1=0.84) (SEM=0.20) and pulse rate (ICC 3,1=0.99) (SEM=0.14). The 95% limits of agreement (LOA) for measuring SpO2 suggests that the iSPO2® and traditional pulse oximeters may vary between -0.28 ± 1.98% (-2.26, +1.70) or a range of 0.56%. This is lower than the traditional pulse oximeter manufacturer's findings and less than prior investigations of ±5% (±2SD). The 95% LOA for measuring pulse rate suggests that the iSPO2® and traditional pulse oximeters may vary 1.74± 4.98 (-3.24, +6.72) or a range of 3.48 BPM. This is higher than the traditional pulse oximeter manufacturer's reported findings of ±2BPM. The Minimal Detectable Change (MDC90) for both instruments indicates that changes of 0.46% are required in order to be 90% certain that the change is not due to intertrial variability or measurement error. Conclusion: The findings suggest that both instruments may be beneficial for short-term measurements of resting SpO2 and pulse rate.

Olivia Garcia, Alexander Puyot, Kinesiology

The Concurrent Validity of Resting Pulse Rate Measurements: A Comparison of Two Smartphone Applications, Polar H7™ Belt Monitor, and Pulse Oximeter with Bluetooth®.

Faculty Mentor: Scott Cheatham, Kinesiology & Recreation

Pulse rate is commonly measured manually or with commercial wrist or belt monitors. More recently, pulse rate monitoring has become convenient with the use of mobile technology that allows monitoring through the smartphone camera. This optical technology offers many benefits but its clinimetric properties has not been extensively studied. Design: Observational study of reliability Setting: University kinesiology laboratory. Participants: 30 healthy, recreationally active adults (Men-18, Women-12, 25.7±5.46 years of age, 170.3cm ±9.51 of height, and 76.4kg ±19.33 of body mass) Intervention: Concurrent measurement of pulse rate using two smartphone applications (face-scan, fingertip) with the Polar® H7™ belt and pulse oximeter. Main Outcome Measure: Average resting pulse rate for 5 minutes in three positions (supine, sitting, and prone). Results: Concurrent validity in supine and standing was good between the two applications and the Polar H7™ (ICC-0.80-0.98) and pulse oximeter (ICC-0.82-0.98). For sitting, the validity was good between the fingertips application, Polar H7™ (ICC-0.97) and pulse oximeter (ICC-0.97). The face-scan application had moderate validity with the Polar H7™ (ICC-0.74) and pulse oximeter (ICC-0.69). The MDC90 between the fingertip application and Polar H7™ ranged from 1.38-4.36 BPM and 0.69-2.97 BPM for the pulse oximeter for all three positions. The MDC90 between the face-scan application and Polar H7™ ranged from 11.88-12.83 BPM and 0.59-17.72 BPM for the pulse oximeter. The 95% LOA suggests that the fingertip application may vary between 2.40-3.59 BPM with the Polar H7™ and 3.40-3.42 BPM with the pulse oximeter and the face-scan application may vary between 3.46-3.52 BPM with the Polar H7™ and 2.54-3.46 BPM with the pulse oximeter. Conclusion: Pulse rate measurements may be effective using a finger-tip application, belt monitor, and pulse oximeter. The interchangeability of this technology is questionable due to the lack of known clinimetric properties, validation with different populations, and standardized procedures.
Brandon Gay, Rita Amos, Anthropology

Community Engagement

Faculty Mentor: Ana Pitchon, Anthropology

The Public Engagement focus area of the STARS (Sustainability Tracking, Assessment and Rating System) Assessment Research Project targeted the nature of community engagement at California State University Dominguez Hills (CSUDH). Community engagement refers to how students participate in the community while representing the university that they belong to. This interaction includes but is not limited to: volunteering, internships, and service learning classes. Community engagement can be used to benefit the campus from providing students experience in the real world to providing a more stable student population for the university. Through a mixed methods examination of community service projects and participants, this research assessed Dominguez Hills' community engagement and its potential for more outreach. Currently, survey results from this research project suggest that many more students are interested in community service than are actually participating. The surveys also address the level of knowledge of students regarding the University's SLICE, the school's department that establishes many opportunities for CSUDH students to give to others while simultaneously receiving life changing experiences through service learning. By surveying students and faculty of CSUDH, this research provides a glimpse into the sustainability of our current practices as well as recommendations for addressing issues that are faced by the student population.

John Gibson IV, B. B. Rush, Psychology

The Neuroscience of Broadening Participation in Science, Technology, Engineering, and Mathematics (STEM)
Faculty Mentor: Karen Wilson, Psychology

In our global world, education is a determining factor to ensure an individual's success and prosperity in life. The proposed study will examine the extent to which self-efficacy and social support are associated with academic performance. The proposed study will also assess the extent to which anxiety, stress, and poor executive function contribute to academic functioning and poor retention in freshman college students. Participants will complete a battery of tests and questionnaires used to assess their psychosocial and executive functioning and literacy. In addition, a brief history questionnaire will be completed to gather information about the student's social history. This study has hypothesized that a low GPA, limited social support, and exhibiting signs of stereotype threat are correlated to a high degree with math anxiety, resulting in college freshman not pursuing most science programs. Information obtained from this study will help in the identification factors that promote the academic success of students entering college and those that have a deleterious effect on academic performance. Such information could be used to design programs that improve academic success and the retention of college students.
Omar Gomez, Daniel Ennaco, Marina Armendariz Debbie Simon, , Psychology

Increasing Psychological Resilience and Affect: The Roles of Cognitive Appraisals, Locus of Control, and Feedback

Faculty Mentor: Steven Frieze, Psychology

This study seeks to investigate the impact of cognitive appraisals, locus of control, and types of feedback on generating resiliency and positive affect. This study will reference the Trier Social Stress Test, which has been found to induce moderate psychological stress responses in laboratory settings (Kirschbaum et al., 1993). Limited studies have implemented these variables in an experimental setting where participants are forced to encounter a stressful event and thus find themselves with the dilemma of whether or not to continue. Participants will encounter one of eight conditions in a 2 x 2 x 2 factorial design. First, participants will be paired with a group member. They will be told that they will have seven minutes to create a slide presentation and three minutes to present it orally. A panel of judges will evaluate their presentation and the subjects will be told that their presentation will be "recorded". Researchers will manipulate cognitive appraisals (perceiving the task as a challenge or a threat), locus of control (internal or external) through leadership or subordinate role, and feedback (positive or negative) provided by the judges, which will consist of verbal or nonverbal cues. Upon completion participants will then fill out the PANAS and the Ego-Resilience scales. This study hypothesizes that participants who perceive the stressful task as a challenge, who have control of the situation (internal locus of control), and receive positive feedback will complete the task, score high on resiliency, and will report more positive affect. Resilience research holds promise for its potential to inform treatment of stress-related pathology (Ballenger-Browning & Johnson, 2010). A better understanding of the mechanisms that promote resilience can inform training programs aimed at preventing maladaptive responses to trauma and life stressors. This study seeks to gain an overall understanding of how these concepts aid an individual's resilience.

Gabriela Granados, Art and Design

Camilla Taylor: Manifestations of the Mind

Faculty Mentor: Kirstin Ellsworth, Art and Design

Multi-media artist Camilla Taylor demonstrates exuberant talent through her elaborate printmaking and figurative sculpture. Reflecting on how art became part of her life, she credits her childhood exposure to the art world that would later become part of her identity. There exists an extraordinary correlation between her prints and sculptures. The anthropomorphic figures depicted on her works of art are resonant of Taylor's innovative imagination. Her play between illusion and reality offer her audience a gateway for their own vivid imagination to flow freely. She provides the characters for a story, and invites viewers to construct the narrative. Her passion for articulateness is evident as each sculpture is constructed and placed with precision. Taylor's The Crowd installation uncovers her incredible technique to translate an object of her imagination into tangible media. The process of creating, producing, printing, and assembling her one of the kind ciphers is revealing. Taylor is more than a mere artist; she is a playwright. The assemblage of her ciphers goes beyond presentation. They are an invitation for the public to construct a storyline for one, or all of them.
Jeff Guevara, Melissa Blacketer, Jose Venegas, Physics

Detector R&D for Free and Bound Neutron Oscillation and Annihilation at NNbarX

Faculty Mentor: Kenneth Ganezer, Physics

The NNbarX experiment is proposed to search for free neutron-antineutron oscillations using ultra-cold neutrons from a spallation (particle collisions on heavy nuclei) source at the Fermi National Accelerator Laboratory (Fermilab). Currently the CSUDH sub-group of the NNbarX Collaboration is working on simulations of free and bound neutron oscillations in several planned experiments involving oxygen, carbon, and liquid argon to help fix the design of the detectors, the experimental configuration, and the initial data selection criteria for NNbarX. CSUDH undergraduate students working on this project over the summer used a simulation program originally developed for nucleon event tracking for neutron-antineutron oscillations at Super-K I and modified it for use in NNbarX. When construction of the experiment is finished in 2021, it will be able to confirm or rule out the leading theories of grand unification; these include models with the seesaw mechanism, right-left symmetry, supersymmetry (SUSY), and strings.

Jeremiah Hankins, Scotty Gomez, Computer Science

A Comparison of Geotagging Algorithms

Faculty Mentor: Antonia Boadi, Computer Science

Extracting geographic information from text, a progress known as geotagging, is an important step in mining textual data for useful information. Geotagging is a subdomain of Natural Language Processing (NLP), specifically Named Entity Recognition (NER), which aims to classify words and phrases into categories such as locations, dates, and names of persons. Traditional NER techniques tend to perform poorly when presented with the constrained problem of geotagging. For this reason several geotagging methods have been developed using NLP techniques such as NER and Part of Speech tagging (POS) in combination with heuristic algorithms custom tailored to the problem. Though many of these techniques have been published for peer review and integrated into commercial software, there have been few publications that focus on the trade-off between accuracy and computation time. Computation time is an important criterion for selecting algorithms to include in real-time data mining systems, which must handle substantial quantities of streaming text (i.e. news feeds, twitter posts, blogs etc.). However, more accurate and computationally expensive algorithms will increase the data's usefulness later in the data mining pipeline.

Marty Hanson, Bryan Nam, Digital Media Arts

“Bully Boil Over”

Faculty Mentor: George Vinovich, Digital Media Arts

The objective of this television public service announcement is to increase awareness of the potential consequences of bullying. Co-producers, Marty Hanson and Bryan Nam, took this project through the entire production cycle: research on the topic, pre-production (script writing, auditioning actors and narrators, location scouting, storyboarding, and creating shot lists) to production (crew assignments, lighting, art direction, camera, and directing the actors) and finally to post production (video editing, graphics production, sound design with ADR, foley and walla-walla, and recording original music) with the goal of informing viewers of the potential consequences of bullying.
Student Research Day 2014 - Abstracts

Mia Harkness, Psychology

Bully Behaviors, Friendship Status and Social Rejection Linked to Distinct ADHD Subtypes

Faculty Mentor: Karen Wilson, Psychology

The purpose of this study is to determine whether bully behavior and social status of children with Attention-Deficit/Hyperactivity Disorder (ADHD) is linked to specific AD/HD subtypes. The CBCL Questionnaire will be used to assess bully behavior(s), social rejection and the friendship status of children (aged 6-16) diagnosed with AD/HD. It is expected that: 1. Children (aged 12-16) with AD/HD-combined type (ADHD-C) will be more likely to fit this studies operational definition of a bully than will children (aged 12-16) with AD/HD-Predominantly Inattentive (ADHD-PI) type 2. Children/adolescents (aged 6-18) with AD/HD inattentive type (AD/HD-PI) will be less likely to engage in bully behavior when compared to children/adolescents (aged 6-18) with hyperactive-impulsive type (AD/HD-PHI) ADHD 3. Children between the ages of six and ten with AD/HD-C type will be more likely to be identified as a victim of bullying than children between the ages of twelve and sixteen with ADHD-C type 4. Children with AD/HD who meet criteria as bullies or bully-victims will have fewer friends and endure greater social rejection when compared to children with AD/HD who are neither bullies nor bully victims.

Olivia Havens, Anthropology

Chimú vs. Inka: Distinctions of Urban Landscapes

Faculty Mentor: Jerry Moore, Anthropology

The Chimú and Inka empires were two different prehistoric Andean societies, yet both were ruled by kings thought to be of divine or semi-divine heritage. Both empires attributed their divine heritage to decent from celestial deities: the Inka traced their ancestry to the sun, while the Chimú royalty were said to be of the stars. These ideas lead to the formation of their worldviews, where rulers were at the apex of society. Moore contrasts Chimú and Inka worldviews and argues that their distinctive perspectives were reflected in their funerary architecture. Based on the knowledge that the Chimú and the Inka were highly stratified societies and that the rank of an individual determined their burial and tomb architecture, I determine that both the urban centers and imperial capitals of the Chimú's Chan Chan and the Inka's Cuzco had similar distinctions in the layout, architecture and social hierarchy, expressions of their world views regarding class and status according to decent.
Gloria Hernandez, Psychology

Ageism Prevalence

Faculty Mentor: Heather Butler, Psychology

Ageism has become the third "ism" following racism and sexism. There are many stereotypes regarding old age that may adversely influence the aging population and these stereotypes exist in many countries. Social Identity Theory states that people will form group identities based on minimal criteria and will demonstrate these biases in favor of their own groups; this may be the reason why ageism is prevalent today. For example, young adults may consider their group as the "ingroup" and think of older adults as the "outgroup" because of age differences. This study explored ageist beliefs in younger adults between the ages of 19 and 30. The Fraboni Scale of Ageism (FSA) was used to measure the levels of agreement with ageist statements in 59 undergraduate students from California State University Dominguez Hills. No gender differences in ageism were found, but there were differences in the subscale scores. The first subscale, stereotypes (questions 1-10), examined misconceptions formed about older adults. The second subscale, affective attitudes (questions 11-18), examined how political rights and activities of older adults were affected. The third subscale, separation (questions 19-29), examined the ways people socially withdrew from older adults. An Analysis of Variance (ANOVA) with repeated measures was run to compare the scores of the three subscales, and since there was a significant effect found (Wilks' Lambda = .26, F (2,45) = 65.58, p = .000), post hoc comparisons were made between each subscale. Participants scored highest on the subscale of affective attitudes; a significant difference was found when it was compared to stereotypes and separation. Future research needs to compare the scores of young, middle, and older adults to investigate whether ageist beliefs are held by different age groups. It is possible that even older adults hold ageist beliefs about their own age group.

Sara Ho, Vanessa Ladson, Jessica Lam, Occupational Therapy

Transition to College for African-American Males: A Narrative Analysis

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this narrative analysis qualitative study was to explore the retrospective and chronological experiences of the transition from high school to college. Participants included African-American males who are first-generation college students between the ages of 18 to 25 years. Few studies explore the lived experiences and factors influencing the transition from high school to higher education for African-American males who are first generation college students. Using semi-structured interviews, the lived experiences of six participants were explored using a narrative approach. All semi-structured interviews were audio recorded and transcribed verbatim. This approach allowed researchers to analyze and understand the influential factors associated with the transition from high school to college for six African-American men through the chronological reconstruction of their stories. Five themes were derived from data analysis of participant's narratives of their transition from high school to college. These themes included (a) personal factors, (b) exposure, (c) structured time, (d) receiving support to providing support, and (e) the meaning of college. This study strengthens the expanding body of literature on how to effectively support African-American males in transitioning to higher education. Research findings also hold implications for Occupational Therapy practitioners, who are well situated to develop resources that support adolescent African-American male students during their transition from high school to college.
Rebecca Hogshead, Samantha Itaya, Allyson Javier, Occupational Therapy

Families of children with ASD: A phenomenological approach to examining participation in leisure activities

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this study was to examine the perceptions of mothers about their experiences of leisure participation and quality of life of their child with autism spectrum disorder. Through the lens of the mothers, the researchers used a transcendental phenomenological approach to examine the leisure participation of the respective families. This approach allowed the researchers to better understand the perspective of the family unit in hopes of revealing the essence of the meaning of participation in leisure activities for families of a child with autism spectrum disorder. Researchers interviewed six mothers of varying ages and ethnicities. Interviews were transcribed and significant statements were extracted. Meanings were derived from these statements and then categorized into themes. These themes included: stressors, tools for engagement, creating meaningfulness, and education and advocacy. From these themes the researchers found that all families have gone through a process of reshaping expectations, which has allowed their leisure participation to be meaningful. This research demonstrated a need for occupational therapists to work with families in order to take their unique interests and find the right match for potential leisure success.

M. Tareq Hossain, Computer Science

Developing Multi-Layered Web Application

Faculty Mentor: Mohsen Beheshti, Computer Science

The Internet is based on sharing of information, infrastructure and software. But in order to use the shared infrastructure and programming of the web, the interactive programs had to be downloaded to the users’ computer. The idea of this project first materialized due to a personal situation. As I started to research in depth, I’ve found it more interesting and challenging to learn about PHP and MySQL in particular. Those are what this project is based on. Another motivation was I always wanted to learn about developing multi-layered web applications, and the CSC 492: Senior Design class gave me that opportunity. This particular project deals with a real estate web site that basically saves and retrieves information to and from a database. This will be in a three layered web application format. The front end or the client layer will be based on HTML, the middle layer will be PHP and the back-end database will be on MySQL. A lot of web applications are currently using this format. So in that sense it is not entirely new. For the time constraint however this project will be kept to a minimum of features such as saving information, editing information, retrieving information and a search option. Optional features may or may not include are: printing reports, e-mailing reports etc.
Cassandra Hudson, Rachel Jao, Meghan Moss Jacqueline Sanchez, Occupational Therapy

Adaptation in Adolescents and Young Adults with Spinal Cord Injury: A Mechanism for Change

Faculty Mentor: Claudia Peyton, Occupational Therapy

Spinal cord injury occurs in approximately 12,000 individuals nationwide each year with more than half of these occurring in 16 to 30 year-olds (The National SCI Statistical Center, 2012). This age period is marked by challenges that represent the transition into adulthood (Webb & Emery, 2009), and a traumatic injury during this time can severely complicate the transition. A spinal cord injury (SCI) is defined as the "occurrence of an acute, traumatic lesion of neural elements in the spinal canal, resulting in permanent sensory deficit, motor deficit or bladder/bowel dysfunction" (Cripps, 2008, as cited in Barclay, 2011, p. 573). Although quantitative data exists regarding SCI, there is a lack of qualitative research about the post-injury experience, especially for this age group. This qualitative study examined adolescents and young adults, 1 to 6 years post spinal cord injury, to discover the mechanisms these individuals have used to adapt. Semi-structured, open-ended interviews were conducted with five male participants in California. Data was analyzed for themes using a grounded theory approach and initial and focused coding to reduce data (Charmaz, 2006). The results of the study revealed a theoretical framework consisting of three dyadic relationships affecting adaptation: social support versus isolation, independence versus dependence, and self-reflection versus negative emotions. These dyads may be further influenced by intrinsic and extrinsic factors. These research findings are important to occupational therapy practitioners and may inform service provision to adolescents and young adults living with spinal cord injuries.

Jam Isaga, Health Science

The Effects of Parental Support and Parental Control on Adolescent Academic Achievement

Faculty Mentor: Enrique Ortega, Health Science

Many studies have determined the positive effects of parenting behaviors on many adolescent health outcomes including academic achievement. This study investigated the potential association of parenting support and parenting control on student academic achievement variables. While much is known on the influence of parenting on academic achievement, this study attempted to uncover potential gender differences on the effects of perceived parenting on academic rearing behaviors on Italian and Dutch adolescents. The sample consisted of 510 Italian and Dutch adolescents, living in the northwest of Italy and the northeast of The Netherlands, and was reasonably balanced for country (52% Italian, 48% Dutch), gender (48% female), age (mean age = 17.4 (S. D. = 1.4)). Bivariate correlations were used to explore the associations of among our variables of interest. This investigation employed secondary analysis investigative methods. Results among the Dutch adolescents did not show any correlation between parental support and parental control on both male and female adolescents. However, results among Italian males showed greater parental control to be positively associated with academic value on academic achievement (r=.167, p<.05) and with perceived utility of school (r=.152, p<.05). Results among females on the other hand showed parenting support to be positively associated with grades (r=.216, p<.05), with the value on academic achievement (r=.247, p<.01), with self confidence in academic achievement (r=.221, p<.05). Results indicated clear gender differences on the effects of parental support versus parental control on academic achievement in the Italian population. Such differences may have strong implications for potential family based intervention efforts aimed at increasing academic achievement among adolescents.
Oliver John Baptiste, Sociology

Factoring Socioeconomics and Court Documented Eviction History: Rental Sustainability in the New Market

Faculty Mentor: Matt G. Mutchler, Sociology

"Factoring Socioeconomics and Court Documented Eviction History: Rental Sustainability in the New Market" by Oliver John Baptiste (CSUDH Sociology, M.A. Graduate Student). Over the previous decade, and in years to come, an increasing proportion of Americans have foregone homeownership in favor of renting their homes indefinitely. Moreover, with the professionalization of the rental housing industry, increasing vacancy and rent rates, tenant screening reports have increasingly become a determinant in the decision making process of property owners and management companies when reviewing rental application from potential tenants. This study utilizes data from tenant screening reports from applicants seeking rental housing in the Los Angeles County area, purposively sampling 400 applicant records which report a court documented eviction, alongside a second sample of 200 applicant records without a court recorded eviction. This report reviews literature on the developments of the rental housing industry between the years 1997 to 2013 as it pertains to owner occupied and rental housing, affordable housing, vacancy rates, and evictions especially. Drawing data from sampled applicant reports, this study utilizes measures of applicant age, race, homeownership history, financial debt, rent payment, and the nature of their court documented eviction, including plaintiff type, notice served to applicant, judgment, and rent paid prior to eviction. The study argues that although race, income, and debt are contributing factors in the occurrence of having a court document eviction on record, as more Americans become long-term renters, housing evictions, alongside the challenges certain social groups experience when seeking habitable and affordable housing, will become a common occurrence among a wider demographic of applicants.

Janiece Johnson, English:TESL

The Power of Language

Faculty Mentor: Vanessa Wenzell, English

How, and in what way, does one's profession allow him or her to address and converse with others? How does the language one uses create a sense of power/status, abuse or identity? These are the questions I aim to analyze and answer with the help of a 7 minute clip of the Steve Harvey Show, with starring-guest, Dr. Phil, an American psychologist, author, and TV personality, and Steve Harvey, an African American comedian and TV/Radio personality. The clip shows both Dr. Phil and Steve Harvey giving advice (everyday talk, as well as institutional, non-formal talk) to a young couple in need of answers to "what do we do?" and "what do you think we should do?" Lakoff's "Therapy and the Law: Blurring the Lines," provides my paper a foundation and a purpose, for which I will investigate the characteristics of the linguistic forms and discourse context of this 7 minute clip. Through the analysis of particular features of conversation analysis, speech acts, the cooperative principle (Gricean norms), and the language of therapy, I attempt to discover whether the notion of abuse in institutional talk or offering advice (especially in a public setting) is actually apparent (by Phil or Steve; or both). I conclude that both Steve Harvey and Dr. Phil's (Dr. Phil especially) language, although containing some elements of abuse, in actuality, transmits into being nonchalant, carefree, sarcasm. Yet I question whether this blur between abusive and seemingly innocuous sarcasm language can be too much of an ambiguity for some people; i.e.) non-native/second language learners of English. Lastly, I propose some implications for ESL/EFL learners in response to these findings from the data provided.
Gabriel Jones, Anthropology

Rate of Invasion of Typha spp. and Phragmites australis in the Coastal Wetlands of Michigan

Faculty Mentor: Ana Pitchon, Anthropology

Invasive species often threaten ecosystem dynamics and can lead to biodiversity loss. Within the past few decades, invasive Typha spp. (Cattail) and Phragmites australis (Common reed) have altered many coastal wetlands in the Laurentian Great Lakes through various interactions. Additionally, areas containing a higher abundance of invasive plants are usually associated with increased nutrient conditions that may be facilitating further growth of these plants. The objective of this study was to examine the relationship between the rate of invasion of these plants and nutrient flows from watersheds in selected coastal wetlands in Michigan. We hypothesized that higher abundance and expansion rates of Typha and Phragmites will be correlated to elevated nutrient flows. Using GIS and aerial photo-interpretation, we reconstructed the history of invasion from 1938 to the present in six sites around the coasts of the lower peninsula of Michigan. Data from watersheds sampled near the coast was extrapolated to the coasts to calculate nutrient inputs. The rate of invasion for each site and the amount of nutrient inputs was analyzed using regressions. We expect that heavily invaded sites will correlate with higher amounts of nutrients. These data will be used to develop models for predicting distributions under changing climates and with changes in land use. The results of this study will aid in the understanding of the mechanisms driving plant invasions and provide useful information for wetlands management.

Anthony Jones, Arisdelzy Villanueva, Chemistry and Biochemistry

Molecular Structural Studies of NaZHPO4.12HZO Using in-Situ Thermo-Raman Spectroscopy

Faculty Mentor: Kenneth Rodriguez, Chemistry & Biochemistry

Raman spectroscopy provides valuable information about the molecular structure by identifying chemical bonds and different functional groups. This study involved the in-situ thermo-Raman spectra of disodium hydrogen phosphate dodecahydrate (NaZHPO4.12HZO) at temperatures. The main goal was to investigate the molecular structural changes and phase transformations of various sodium phosphate species during the heating/cooling processes. Thermo-Raman spectrum of grinded then baked NaZHPO4.12HZO crystals has been taken at varying temperatures (250°C-950°C). The heated sample at 950°C was cooled down and the thermo-Raman spectra at varying temperatures were also collected during the cooling process (950°C-32°C). Using thermo-Raman spectroscopy by taking the first derivative of important molecular vibration at changing temperatures could be a new approach for identifying phase transitions in crystalline structures, similar to differential scanning calorimetry (DSC) that is currently used. Additionally, the X-ray diffraction results confirmed the presence of several crystalline structures at varying temperature in the both the heating and cooling processes. The structure of the crystalline phase was observed to yield an ε-sodium pyrophosphate with an orthorhombic crystalline structure upon cooling.
Anthony Jones, Chemistry and Biochemistry

Evaluation of Aloe and Cactus for Burn Treatment by Comparison of Antioxidant Properties and Free Radical Inhibition

Faculty Mentor: Kenneth Rodriguez, Chemistry & Biochemistry

There has been a great interest in natural compounds, which can help with problems faced in the medical field. Many plants are used by indigenous populations for the treatment of skin disorders, including Aloe Vera and other succulents. These plants are known to have high antioxidant content. Antioxidants play a major role in various aspects of health from the reduction of wrinkles all the way to the treatment of burn victims. The goal of this research has been to characterize the antioxidant powers of fresh and lyophilized Aloe Vera and Nopal Cactus in comparison to over-the-counter burn treatments. The compounds of interest were extracted with acidified methanol using a Soxhlet apparatus. The functional groups of the extracts were identified by using Fourier Transform Infrared Spectroscopy and Ultraviolet-Visible Spectroscopy. Once the compounds were identified, Total Phenolic Content and 2,2-diphenyl-1-picrylhydrazyl radical assays were performed. These assays were used to quantify the amount of phenolic compounds present as well as the free radical scavenging ability of the extracted compounds -- all results being compared to the results of the burn cream. The intention of this ongoing research is to better understand the chemistry involved in topical antioxidants. The extracted compounds of Aloe and Nopal both show free radical scavenging activity as well as the presence of phenolic content.

Tanya Kaplan, Psychology

Gender Differences in Attitudes towards Condoms, Partner Influence and Condom Use

Faculty Mentor: Keisha Paxton, Psychology

Consistent condom use during sexual intercourse can be an integral part of preventing sexually transmitted infections. The likelihood of condom use can be associated with partner influence and favorable or unfavorable attitudes towards condoms. Research on gender differences in condom use behaviors and attitudes is mixed. This is an important area in need of further study. The purpose of this study was to examine heterosexual gender differences in attitudes towards condoms and the extent of partner influence on using condoms among college students. Regularity of condom use over the last twelve months by gender was also examined. Participants were college students from a Western university and recruited on campus to complete an online survey. The 13-item Attitudes toward Condom Use and five-item Expectations to Resist Unsafe Sex subscales of the Sexual Risks Scale (DeHart & Birkimer, 1997) were used to assess attitudes towards condoms and partner influence respectively. Participants also reported the frequency in use of condoms over the last twelve months. Implications for the promotion of sexual health among college students will be discussed.
Student Research Day 2014 - Abstracts

Caroline Kiss-Lee, Psychology

The Impact of Social Media on Self-Esteem

Faculty Mentor: Desiree Crevecoeur-MacPhail, Psychology

Social media has become the most predominant method of communicating in today’s society, particularly among adolescents and young adults, and its popularity continues to grow. With the increase in social media usage, it has become necessary to study the effects of this new medium on its users. Recent research suggests a possible correlation between social media usage and self-esteem. A review of the literature revealed findings supporting a decrease in self-esteem with an increase of social media usage. The current study examines the correlation between social media usage and its impact on self-esteem. It also examines the correlation between social media usage and self-presentation on social media, time spent on social media and number of friends on social media. The original hypotheses theorized that the correlation would reveal a negative impact resulting in lower self-esteem directly proportional to the amount of time spent on social media sites. A sample of Facebook users (n=19, ages 21-61) completed the Rosenberg Self-Esteem Scale and a Social Media and Self-Esteem survey from surveymonkey.com, which also included additional questions tailored specifically for this study. The respondents did not show a lower level of self-esteem with social media usage. Contrary to the research, the survey findings did not support the idea that increased social media usage results in lower levels of self-esteem.

Boian Kolev, Computer Science

Investigations into Effective Electronic Countermeasures for Wireless interference

Faculty Mentor: Antonia Boadi, Computer Science

WiFi interference, both malicious and unintentional, is a growing concern for the both military and civilian organizations. An unresponsive wireless network at a critical time can cause serious harm in a variety of different ways. In my research, I investigate various methods for prevention and avoidance of a simulated unsophisticated jamming attack. With the help of a spectrum analyzer, I am able to scan the 2.4 GHz spectrum to discern all nearby sources of interference. Once the major sources of interference, the appropriate actions can take place to minimize the disruption. The techniques used can be applied to increase the effectiveness of home wireless networks when multiple wireless access points are nearby.

Melanie Kushida, Sociology

Cultural Priming as a Mechanism for Dance Interpretation: A Social Experiment

Faculty Mentor: Sohaila Shakib, Sociology

This research examines the effect of cultural priming on the interpretation of movement, specifically in dance, among bicultural Mexican-Americans. We are examining how recently activated cultural knowledge (through priming) influences whether participants interpret dance using a collectivistic or individualistic model. In daily life, people analyze body language, movement, and other ambiguous stimuli; therefore, it would be beneficial to understand how cultural priming plays a role in our response to movement. Currently, fourteen first-generation Mexican-American bilingual college students between the ages of 18 and 27 are included in this study. Eighty-eight percent are female, and 12% are male. Participants are primed using either four American-based images or four Mexican-based images. To ensure that the cultural primes are activated, participants are asked to write ten sentences about what the images represent. Next, participants viewed a 27-second dance video that contains elements that can be interpreted individualistically or collectivistically. Results, although not significant, are in the expected direction suggesting that American primed participants (AP) are more likely to have viewed the dance video through an individualistic model than the Mexican primed participants (MP). MP participants are more likely to have viewed the dance video through a collectivistic model than the AP participants. This would suggest that cultural priming influences our interpretation of ambiguous movement.
Kerry Lamson, Stacey Lee, Laura Leppke Maritza Marquez, Occupational Therapy

Developing an Eating Disorder: A Narrative Analysis

Faculty Mentor: Claudia Peyton, Occupational Therapy

Although there is some literature surrounding the prevalence and incidence of eating disorders, little research has covered the experiential journey of those who have had or have an eating disorder. The purpose of this narrative study is to describe the chronological experiences of women with an eating disorder from the time of onset to the present. The stories of eight women, between the ages of 18 to 65 years old, that have experience with an eating disorder, were analyzed using a qualitative narrative analysis approach. The eating disorders examined in this study included anorexia nervosa, bulimia nervosa, and binge eating disorder. The narrative analysis approach allowed the researchers to examine and explore the meaning of the retrospective experiences of women with an eating disorder. The researchers were able to delve into the personal, social, and contextual factors of the past, present and future that contribute to the storyline of the participants’ eating disorders. The narratives were used to uncover the multiple facets that have contributed to the women's lives as they have struggled with their eating disorders and continue to manage their thinking patterns. The researchers found that common themes among the participants included struggle with self-esteem and body image (past and present), need for control, positive social reinforcement, family and peer influence, influence of culture and media, contextual environments (past and present), social support (past and future), health management, and contextual structure. It was concluded that the narratives of the participants exposed internal thoughts, social support and environmental factors that have influenced the course of their eating disorders. This research will be useful to occupational therapists as it provides a better understanding of how women's experiences with eating disorders affects their patterns of daily living.

Vidar Landa, Marketing

Customer-Based Brand Equity

Faculty Mentor: Natasa Christodoulidou, Management

The purpose of this research paper is to study the concept of customer-based brand equity, including its key drivers and components. By increasing consumers' knowledge about the brand and by creating the right type of brand experiences, marketers can ensure favorable consumer responses. Positive brand equity is created when a consumer responds favorably to a brand and start building a brand relationship. Over time, consumers become attached to the brand and brand loyalty is created. The end result is a strong brand with positive brand equity that generates greater revenue due to repeat business. Three well-known brands that have succeeded in applying these concepts are Aon plc, Manchester United and David Beckham. These three brands are all included herein as examples of how individuals, groups, organizations and companies are applying the concepts of brand equity.
Andres Lara, Philosophy

The Ethics of Authenticity: Life as Project and Responsibility

Faculty Mentor: Dana Belu, Philosophy

The existential angst is the awareness that one is alone, and his days are numbered: man is a finite existence that must operate within a 24-hour window; there is no escape into an afterlife—no transcendent future. There is only flesh and bone presence. It is, therefore, up to the individual to will existence, or as Simone de Beauvoir says, to "appear right not in the eyes of a God, but of being right in his own eyes" (14). Man's approach to his condition, or plague as Camus terms it, determines his authenticity, and his approach ranks him on de Beauvoir's "hierarchy of being," which she illustrates in "The Ethics of Ambiguity." The authentic poet, who must have a purpose without committing to any rule that restricts freedom, for example, is becoming increasingly rare, when authenticity depends on how a commitment is made and when being is a project. My research project, therefore, reports on how living authentically is possible, why it is necessary, and why it is desirable.

French existentialism rejects the idea that a person is born anything except a member of the species: a person inherits a set of socio-economic circumstances. Thus, to remain in, or simply resign to, one's birth situation is inauthentic and indolent: only the person who works actively to shape the world is authentic and becomes an individual.

For these French existentialists, being is a project, a temporal stretching of possibility, and, therefore, one's facticity, or situation, should not define him or her: each person is responsible for shaping his or her world. Making choices to act and live authentically is the exclusive prerogative of man. Life is a call to action, not damnation, and we must respond; my existential interpretation of the poet shows us one way of responding.

Jose Lara-Ruiz, Psychology

Cognitive Function in Retired Professional Football "Speed" Players

Faculty Mentor: L. Mark Carrier, Psychology

Previous research has demonstrated a relationship between head trauma and cognitive impairments in professional football players. The current study was conducted to assess cognitive function among retired football professional players with the greatest risk of head injury (speed players). We hypothesized that speed players compared to non-speed players would have lower cognitive functioning as result of more concussions during their professional football careers. Thirty-eight retired National Football League (NFL) players participated in the current study. The speed player group included quarterbacks, running backs, halfbacks, and linebackers; non-speed players included participants that occupied other positions. The majority of our sample was Caucasian (57%) with a median age of 46.74 years and an average of 7.92 concussions in their professional career. Participants completed measures of speeded attention, Symbol Digit Modalities Test oral (SDMT-O) and written (SDMT-W) trials, a measure of verbal memory, the California Verbal Learning Test-Second Edition (CVLT-II), and a measure of executive functioning, the Controlled Oral Word Association Test (COWAT). Independent sample t-tests were used to compare cognitive function and concussion history between groups. A significant difference was found between speed player and non-speed players in speeded attention and executive function (p < .05). However, verbal memory and concussion frequency did not differ between the two groups (p > .05). Speed players performed more poorly on measures of attention and executive ability, but this difference was not due to a greater frequency of concussions. It is possible that a greater number sub-concussive blows account for the cognitive differences between speed and non-speed players, although additional work will be needed to determine this.
Jose Lara-Ruiz, Psychology

Coping with Post Traumatic Stress Disorder: A Pathology Model
Faculty Mentor: Nancy Cheever, Communications

Post Traumatic Stress Disorder (PTSD) is a trauma and stress related disorder that results from experiencing an event that may involve life threat, serious injuries, or death. PTSD has been linked to risky and addictive behaviors, cognitive deficiencies and difficulty in everyday functioning. Previous research has focused on maladaptive coping mechanisms that include drinking, drug use, and promiscuity. However, we propose that individuals suffering from PTSD may use media as an avoidance mechanism to alleviate PTSD symptoms. Being that no prior research has investigated the relationship between media use, PTSD and cognitive functioning such as academic performance, the purpose of this study is to explore whether individuals exposed to trauma use media as a maladaptive coping mechanism and if this hinders academic performance. Participants (N = 400) in two groups, both military veterans and civilians, will be given a questionnaire that measures aspects of media use, PTSD and academic performance. It is hypothesized that technology use will be used as a maladaptive mechanism by participants with PTSD. Participants with PTSD will engage in more risky behaviors while using different modes of media. At the same time a pathological loop may be formed because exposure to media related to the individual's traumatic experience may result in the triggering of PTSD symptomatology. Furthermore, PTSD symptoms and higher levels of media usage in participants will be related to lower academic achievement. Demonstrating that media usage mediates the relationship between PTSD and academic performance may have major implications in the development of programs to better serve individuals dealing with trauma.

Hugh Leonard, Jose Lara-Ruiz, Psychology

Online Vanity Fair? A Cross-Cultural Comparison of Trait Narcissism, Usage Patterns, and Need Satisfaction of American and German Facebook Users
Faculty Mentor: Larry Rosen, Psychology

Narcissism as a personality trait is associated with increased needs for attention, admiration, self-disclosure and self-presentation as well as for self-esteem. In the context of communication and interaction it is now indeed plausible that the needs for attention and admiration can be satisfied on social networking sites given their worldwide attraction and the vast available audiences. The purpose of this study was to examine whether the assumed relationship between personality traits, associated needs and the use of social networking sites was supported. This study proposed two hypotheses: (1) narcissists use social networking sites more intensively than non-narcissists and (2) social networking can satisfy the needs of narcissistic individuals more than face-to-face communication. A sample of 1,302 participants’ 886 German college students and 416 American college students’ completed an online questionnaire assessing media use, satisfaction with social media sites and personality traits. Findings demonstrated that German participants who used social networking sites for personal purposes were more narcissistic than non-users. In contrast, American users were less narcissistic compared to non-users. Findings also revealed that regardless of their narcissism or social media use, Germans preferred face-to-face communication to meet their communication needs. Americans, however, favored social networking sites to meet their communication needs. Results suggest that the two cultures have different communication priorities as well as different social acceptance of narcissistic behaviors. These cross-cultural differences are critical as social media has become a worldwide phenomenon and it is clear that it is not perceived or used similarly even in similar industrialized countries.
Gayle Leonard, Africana Studies

A Research Study of Aboriginal Australians: Origin, History, Culture, Art, Religion & Rituals, and Current Affairs

Faculty Mentor: Salim Faraji, Africana Studies

Named the first Australians the Aborigines are descendant from the small group of people who left Africa about 70,000 years ago and colonized the rest of the world. The Aborigines are the original inhabitants of the Australian continent, and for almost 50,000 years the Aboriginal Australians had the continent to themselves. After arriving in Australia the settlers evolved, developing unique characteristics and technology. However, the distinctiveness of the Aborigine population has remained relatively isolated according to DNA. In DNA analysis research, which included 700 samples from Aboriginal Australians Deborah Smith cites researcher, Peter Forster of Cambridge University who says, "The results were strong evidence for the out-of-Africa theory, that all modern humans alive today share a common ancestry." For the first time this evidence gives us a genetic link showing that the Aboriginal Australians and New Guinean populations are descended directly from the same specific group of people who emerged from the African migration. (Deborah Smith, 2007). DNA evidence also suggests that Aborigines and Europeans share African roots which falsifies the claim that humans evolved separately in different parts of the world. An ongoing question remains among archaeologists, and scientists; where did Aboriginal Australians come from, and how did they get there? This research paper examines these questions, and including Aboriginal origin, history, culture, art, religion & rituals, and current affairs.

Nicole Lewis, Michelle Marumoto, Neda Massih Lisa Nguyen, Occupational Therapy

Life with My Guide Dog: A Realist Ethnography

Faculty Mentor: Claudia Peyton, Occupational Therapy

Few research studies were found on the topic of day-to-day life with a guide dog. No research was found that discussed the experience of having a guide dog using a qualitative ethnographic research method. Therefore, the purpose of this study was to describe the experiences of visually impaired individuals who use guide dogs to help them participate in daily activities. The experiences of 7 visually impaired individuals located in Southern California and between the ages of 18 and 70 years, who use guide dogs was explored using a realist ethnographic approach. Findings suggest that there were many benefits to having a guide dog that include: improved community mobility, increased participation in daily activities, feeling more independence, and an enhanced sense of confidence. There were also some challenges that participants identified which included: being denied access to environments such as restaurants and hotels and having to part with the guide dog. These findings will help occupational therapists as well as other healthcare professionals give their clients a better understanding of what they can expect their life to be if they decide to obtain a guide dog.
Alfonso Lomeli Jr, Benjamin Vo, Art & Design

HOPE: Homeless Outreach Promoting Empathy

Faculty Mentor: Michele Bury, Art and Design

Los Angeles County is often referred to as the homeless capital of America with the number of homeless increasing everyday. Those who are homeless suffer both physically and mentally and without help can inevitably die on the streets. An even more surprising statistic is how nearly a third of all of those who are homeless have an education of a Bachelor's degree or higher. In our outreach campaign, which we call HOPE, we aspire to change the stereotypical outlook on the homeless through design. We wish to educate the general public about the homeless to show that they are people like everyone else and that each and every one of them has a story. By doing this we hope to start a movement through our creative use of design.

We have teamed up with Dr Sophia Momand of the CSUDH Health Center and she has helped us push HOPE as a movement and we strive to one day make it into an official organization. Since the start of HOPE we have helped fundraise donations towards hygienic kits for the homeless through our design campaign. Also, we have had multiple outings where our group has delivered these hygiene kits to homeless as well as Dr Momand has offered medical check ups to those in need. To inform the general public on the issue we are addressing, our design team has created various deliverables. Posters, flyers, infographics, donation boxes, and t-shirts, which incorporate our original designs have helped spread the word about HOPE. But with all these deliverables, we cannot make this into an organization on campus without more people to help our movement grow. So please, help us spread HOPE.

Karin Lopez, Julie To, CBAPP

No Longer Child's Play: Identifying the Minor Violent Video Game Player

Faculty Mentor: Charles Thomas, Accounting, Finance & Law

In the wake of recent gun violence, such as the school shooting in Newtown, PA, there are renewed concerns regarding access to violent video games by minors and the potential real-world dangers of this activity to society. These concerns have led to laws in nine cities and states attempting to regulate minors' access to violent video games -- all of which have been struck down by the courts as violations of the 1st Amendment protections for freedom of speech.

The gaming industry has a voluntary ratings system, and violent video games are rated "M -- for Mature" and recommended only for children seventeen and older. Despite the rating system, antidotal data shows that minors nonetheless play "M" rated games. Since government regulation conflicts with the 1st Amendment, some have suggested direct advocacy marketing efforts aimed at lowering demand for these games with minors, similar to the "Truth" campaign for cigarettes and MADD for drunk driving.

The first step in any successful marketing strategy is to identify the target audience. Rather than presume that all minors play violent video games equally -- we inquired whether there were defining characteristics of a minor violent video game player. Our research seeks to survey junior high school students (ages 11 - 14) on their gaming habits -- particularly related to violent video games.

Our research aims to establish: (1) whether violent video game usage is prevalent among junior high school students, despite the gaming industry’s suggested prohibitions; and (2) whether violent video game usage is evenly distributed among teens, or whether a consumer segment for a minor violent video game player can be defined. It is our hope that this data may lead to more focused target marketing campaigns ~ aimed at reducing violent video game play among minors.
Gerardo Lopez, Matthew Gallimore, Digital Media Arts

“Pass A Smile”

Faculty Mentor: George Vinovich, Digital Media Arts

The objective of this television public service announcement is to increase awareness of anti-bullying tactics in high school. Co-producers, Gerardo Lopez and Matthew Gallimore, took this project through the entire production cycle: research on the topic, pre-production (script writing, auditioning actors and narrators, location scouting, storyboarding, and creating shot lists) to production (crew assignments, lighting, art direction, camera, and directing the actors) and finally to post production (video editing, graphics production, sound design with ADR, foley and walla-walla, and recording original music) with the goal of inspiring viewers on how to combat bullying in high school.

Gerardo Lopez, Paul Murray, Janelle Romero, Digital Media Arts

Love LOL

Faculty Mentor: George Vinovich, Digital Media Arts

This music video featuring local rap artist, Silbo Puente, tells the story of a man who does not want the relationship he has with his girlfriend to progress to the “next” level. Co-producers, Gerardo Lopez, Paul Murray, and Janelle Romero, took this project through the entire production cycle: pre-production (script writing, auditioning actors, location scouting, storyboarding, and creating shot lists) to production (crew assignments, lighting, art direction, camera, and directing the actors) and finally to post production (video editing and graphics production) with the goal of telling a lighthearted story about avoiding the “L” word.

Joseph Luevanos, Efrian Carlin, David Romberg, Business Administration

Holy Trinity Compensation Research Report

Faculty Mentor: Thomas Norman, Management & Marketing

This consulting report has been prepared by California State University, Dominguez Hills students to analyze employee compensation and benefits raised at Holy Trinity School. Located in San Pedro, California, Holy Trinity School provides educational services. Its objective is to describe the current compensation of employees, and indicate possible issues to address related to salary and benefits. In addition, local educational institutions will be measured against Holly Trinity’s compensation package such as Los Angeles Unified School District, Torrance Unified School District, and Long Beach Unified School District. Our analysis will suggest implementation of the compensation package described may assist with employee recruiting and retention. The compensation package describes possible measures for adequate hiring and retaining qualified employees in a competitive labor market.
Cassandra Maddux, Arisdely Villanueva, Chemistry and Biochemistry

FTIR Study of Anaplastic Sarcoma of the Liver in Mice

Faculty Mentor: Kenneth Rodriguez, Chemistry & Biochemistry

Anaplastic Sarcoma is a rapidly dividing cancer of the bone, cartilage, fat, muscle, blood vessels, or other connective or supportive tissues. As of 2013, Sarcoma makes up about 15% of all childhood cancers. A standard treatment for Anaplastic Sarcoma has yet to be made because Sarcomas are often resistant to treatments. So far, the most common treatment has been Nephrectomy. The other cancer treatment option is resection, in which experienced surgeons remove the carcinogenic tissue. Although the morbidity and mortality rates of resection have improved over the years, this method still remains invasive, subjective, and does not guarantee the complete removal of cancer. The goal of this research aims to develop a method to not only detect cancer in tissue, but to differentiate between normal tissue, cancerous tissue, and the desmoplastic response (margin) by using infrared spectroscopy. The infrared spectrum of the tissue was used to select chemical absorption vibrational bands that are different in the cancer segment and normal segment of the tissue. These differences allowed us to develop biomarkers. When plotted against each other, the biomarkers produced 2D plots, histograms, and contour images that highlighted possible cancerous regions, normal regions, and regions that lie in the margin. To insure the validity of our method, our results (images of segmented tissue) were compared to a Hematoxylin and Eosin stain (H&E) of the tissue. Thereby, one of the future medical applications of this cancer study is to construct a fiber optic probe that could produce a spectral image of a patient's tissue in real time during surgery. As a medical tool, the probe could signal the surgeon what tissue to incise and aid in the process of successfully removing all cancerous tissue, including the intermediate tissue, in order to decrease the chance of reoccurrence and lessen the subjectivity involved.

Michelle Manning, Health Science

The Correlation between Religiosity and Behavioral Domains among Italian Adolescents

Faculty Mentor: Enrique Ortega, Health Science

This study explored possible correlations between adolescent religiosity and two important behavioral domains: deviant behaviors and academic achievement. The research conducted suggests potential beneficial behavioral consequences of religiosity on specific adolescent behaviors including planning for the future, coping strategies, self-discipline, and taking responsibility for one's actions, all of which are central aspects of adolescent life. The focus group consisted of 302 Italian high school adolescents (48% female), ages 15-19 years, living in the northwest of Italy. The participants were representative of the population of adolescents attending high school in this part of Italy. Regarding relevant structural indicators, this sample was comparable to the general Italian population. Several research methods were used to analyze the data collected, including bivariate correlations and other secondary analysis investigative methods, such as frequency distributions. The analytical results suggest that greater reports of religiosity were associated with higher value on academic achievement and present utility of school. Negative relationships were found with lying and disobedience and marijuana use. No associations were found for alcohol use, theft and vandalism, drop out or expectations of academic success. These results may indicate that religiosity plays an important positive role on adolescent behavior. Findings such as these may point to the need to investigate possible determinants of the positive influence of religion on adolescent pro-social behaviors and its function as a risk prevention determinant. Limitations of the study include the fact that all measures were self-report in nature, the fact that we did not take into account cultural specific variables, and that our sample was relatively small. Any possible strengthening or weakening of the argument would require larger pool samples, a number of objective measures and the inclusion of cultural specific measures which can allow us to test the influence of culture on such matters.
Student Research Day 2014 - Abstracts

Lupita Martinez, Psychology

Depression in Latinas and Caucasians at CSUDH: The influences of role conflict and acculturative stress on mental health

Faculty Mentor: Keisha Paxton, Psychology

From early adolescence through adulthood, women are twice as likely than men to experience depression (Nolen-Hoeksema, 2001). Interestingly, females are no more likely than males to experience depression until after about the age of 13 when the rates of depression for girls begin to increase dramatically (Nolen-Hoeksema, 2001; Naninck, Lucassen & Bakker, 2011; Bebbington et al., 2003). These same studies have attempted to pinpoint the cause of these gender differences in depression although it is nearly impossible to find one exact reason; it is likely to be a combination of many different factors. One study found that women are confined to a cycle of low control over their environment because they experience more chronic strain, have a greater tendency to ruminate, and have a lower sense of control in their lives compared to men (Nolen-Hoeksema, Larson, Grayson, 1999). Moreover, Nolen-Hoeksema (2001) noted that women are increasingly "sandwiched" between caring for young children and caring for sick and elderly family member and as a result, this role overload is said to contribute to general distress, including depressive symptoms. This study will look at role conflict between Caucasian and Latinas and how this may relate to depression in undergraduate females 18 years or older. Female participants from varying majors completed an online survey (n=197) that included questions on generational level, number of units, marital status, number of children, as well as questions measuring role conflict, acculturative stress, and depression. It is hypothesized that Latinas whom are experiencing more acculturative stress will be more depressed compared to those who are more acculturated as well as those who identify as Caucasian. Essentially, it is hypothesized that acculturative stress and role conflict influence the severity of depression in female undergraduate students. Further analyses will be discussed; this will contribute towards understanding of relationship between role conflict, ethnicity, and depression.

Dawnna “Ashay” Mathieu, Arts and Humanities

The Unveiling of the Obscured: Blacks Victims of the Holocaust Faculty Mentor: Sally Etcheto, Music

The Unveiling of the Obscured: Black Victims of the Holocaust is a research project that increases the awareness about the African Diaspora’s descendants in Europe during the Nazi era. This project presents the art work created in a Nazi concentration camp, by Josef Nassy, an African American expatriate of Jewish descent, and highlights the life of an Afro-Germans that was subjected to Nazi brutality. The juxtaposition of ekphrastic poetry written, by Dawnna “Ashay” Mathieu and her jazz singing brings a fresh unique perspective to the discussion of the Holocaust. Before Nazi imprisonment, Valaida Snow, an African American Holocaust survivor was a working jazz musician in Europe. However, her ordeal as a victim is obscured in Holocaust history by most Eurocentric historians. Ashay will sing a jazz tribute to Valaida Snow, and tell of her suffering and miraculous survival of the Holocaust.

This multimedia presentation seeks to arouse the artistic community by encouraging it to become involved in preserving the memory of the Holocaust. The diversity of the groups that were victims during the Holocaust, denotes a need for collective healing. This project unites the community’s spirit of victory, and promotes speaking out against crimes against humanity in the twenty-first century. Thus sending a clear message “Never Again” will genocide and bigotry be ignored by our world citizens.

The iconographic and semiotic approach to interpreting text, language, images and artifact about blacks in the Holocaust is an intriguing study of the humanities. The history of blacks in the Holocaust needs to be presented in diverse performance spaces of what Levebre calls “the far order” of the city. This creative project could positively diversify current debates about the Holocaust in the twenty-first century. This project exemplifies the interdisciplinary concepts of the Arts and Humanities program at CSUDH.
Kelly McBride, Studio Art

The Reciprocity of Art

Faculty Mentor: Gilah Hirsch, Art and Design

During the summer of 2012 I had the opportunity to study painting and drawing in Florence Italy for three weeks. Of late this has been a major influence on my work as I have been exploring Renaissance and Catholic themes in art. I have been heavily influenced by my trip abroad and by the Italian Renaissance in Florence and have begun mixing Old World themes and iconography with my New World perspective.

I am a visual artist whose experience informs my art. Personal experience is the largest influence on my artistic perspective and is informed by my identity, gender, heritage, relationships, education and travel. The majority of my developed works have been paintings and it is with painting that I have found a form of self-expression that represents my artistic point of view.

After I began studying art and art history my work became more rich and deliberate. My journey as a student and artist has taught me that my work is greatly related to Fauvism because of the colors I choose. My interest in relationships leads to more narrative and humanistic subject matter, both animal and human, which reinforces my interest in Italian Renaissance painting and philosophy.

A reciprocal relationship exists between my life experiences and my paintings. While experience triggers subject matter for the paintings, the process of evolving the image into a more poetic level of vision, allows me to interpret and emotionally process my experiences.

Chelsea McElwee, Psychology

Engagement of Risky Sexual Behaviors can be Influenced by the Absence of Parental Sex Communication

Faculty Mentor: Keisha Paxton, Psychology

Lack of parental communication about sex can have an influence on the child's sexual attitudes and behaviors. Sex would be considered as a sensitive subject between the caregiver and child. Some parents find this conversation to be difficult to discuss, although it is necessary. The purpose of this study was to examine who spoke to the participant about sex when growing up and determining if that had an influence on their sexual attitudes and behaviors. College students attending a Western university reported their attitudes about their sexual activities on an anonymous online survey. After reading each item on the online survey, participants gave their input. It was hypothesized that Black/African Americans and Hispanic/ Latino/a adults are less likely to be spoken to about sex while growing up by their mother and/or father than Caucasians. Additionally, it was hypothesized that the lack of parental communication about sex when growing up can increase females and males likelihood to engage in risky sex behaviors. Furthermore, it was also hypothesized that women are less likely to get spoken to about sex when growing up. Results of this study will provide important information for sexual health programs for youth and their parents.
James Lloyd McIntosh, NCRP

Food Not Bombs: Is Giving Away Free Food an Act of Domestic Terrorism?

Faculty Mentor: Margaret Manning, Negotiation, Conflict Resolution and Peacebuilding

This examines a grassroots food-sharing movement, Food Not Bombs that serves free food on the premise that public spaces should serve public needs, like hunger. There are 48 million people described as "food insecure" in the U.S. Government indifference, demonstrated by cuts to SNAP food stamps, is an act of structural violence against these impoverished and hungry citizens. This led to the rise of grassroots movements like Food Not Bombs to fill the gap. Food Not Bombers raised the question: Why couldn't 50% of the $718 billion military budget spent supposedly to keep Americans safe post-9/11 from terrorists be diverted to keep citizens adequately fed? Some U.S. cities, such as San Francisco and Orlando, reacted to the Food Not Bombers distributing free food by enacting new ordinances. The Food Not Bombers protested in acts of civil disobedience by continuing to serve food and were subsequently arrested by local police. It is ironic that Food Not Bombers are treated as domestic terrorists in their fight against structural violence. One argument raised against the Food Not Bombs movement stems from the health and sanitation of food preparation and service. However, those regulations were intended for businesses that profit from the sale of food not the sharing of food in public places. The harsh reaction to the Food Not Bombers is in large part actually due to the stigma attached to homelessness and hunger in the U.S. This stigma is manifesting itself in the form of legislation which directly affects the homeless and hungry of America. In over fifty cities across the U.S. anti-food sharing and anti-camping laws have or are making their way onto the legal books now. We fight wars to keep us safe, behind the walls we starve.

Bonnie McKenzie, History

Boy Scouts of America: Good for God, Good for Business

Faculty Mentor: Ericka Verba, History

In 2013 The Boy Scouts of America was under attack because of their exclusionary membership policies that prevented gays and atheist from joining. This research began with a question. How did the BSA (a scouting program) come to hold such conservative religious values? Is the BSA a progressive and inclusive organization as their founders intended, or are they conservative and exclusive?

This paper explores the history of the Boy Scouts from its roots as a progressive movement through its early transformation into one of the most successful philanthropic business models in the world. It pays particular attention to the BSA’s relationship with the various religious institutions and the resulting unforeseen consequences of those relationships. The evidence will show how in the beginning the partnering of the Boy Scouts with churches was primarily a business arrangement that was mutually beneficial. The parties also shared the same “proper” notions about religious masculinity. The evidence showed that over time as social mores changed, it became more difficult for the BSA to maintain the image of an apolitical non-activist organization in the uplifting service of adolescent boys. I argue that the BSA lost their secular independence as a public entity because they allowed churches to integrate religious elements into the BSA scouting program, and thereby allowing the distinction between a non-profit philanthropic corporation and a religious organization to become blurred.

The BSA would have a hard time extricating themselves from religion entirely both for commercial and principled reasons. Is there still a market for character building organizations, and can one organization speak for a nation in defining the proper training for the American boy? The mechanics of scouting have not changed much nor has BSA’s guiding principles. The problem is that America’s view of masculinity, degrees of tolerance and moral authority has changed.
Jessica Mendoza, Psychology

I Share, Therefore I am - A Literature Review on the Impact of Technology on Memory

Faculty Mentor: Larry Rosen, Psychology

With technology advancing and becoming more accessible to us in our everyday lives, its impact has become evident. Increased media consumption has created many important research questions concerning how technology affects health, behaviors, attitudes, and attention. Despite several important findings in these areas, few studies have explored the impact technology has on autobiographical and episodic memory. It is unclear whether technology impairs or improves one's ability to remember life events or particular events. Digital memory is important as it enables the recollection of past experiences, sharing of personal experiences, personal reflection and analysis, time management, and security (Czerwinski et al., 2006). The idea to collect and record aspects of our lives has been discussed for a long time. Vannevar Bush (1945) spoke in favor of technologies intended to keep track of daily aspects of one's life by creating a device that would work congruently with our minds' natural ways of working my means of association. There have been mixed findings as to whether technology is beneficial or detrimental. Sparrow and Wegner (2011) examined the "Google Effect" on memory, and found that dependency on technology diminishes memory retrieval, yielding insight into how technology can be detrimental to memory processes. Lamming and Flynn (1994) wrote about a device called the "Forget-Me-Not" that alleviated cognitive workload through the use of technological devices. This device was designed to help a person recall names, learn how to use machinery, and find lost documents. Recent research on a device called the SenseCam, a small device worn around the neck that takes pictures according to movement, temperature and change in light, found that its usage improved memory for past personal events (Sellen et al., 2007). The existing literature is limited in its examination of the relationship between technology and memory, elevating the need for more comprehensive research.

Jessica Mendoza, Art and Design

New Perspectives on Women in Ceramic Art

Faculty Mentor: Kirstin Ellsworth, Art and Design

In contemporary ceramics, women artists face the challenge of close-to-ancient stereotypes that over the years have been subdued, dusted away, but never quite resolved. These stereotypes include issues concerning the infamous question of 'art vs. craft', the social appropriation of women to the decorative arts and the feminine approach to ceramic work. Not only do these stereotypes hinder the historical, contextual, and social understanding of modern ceramics, but the attempts to resolve such issues has resulted in little, if any, progress.

In this paper I take a different approach at the matter by introducing new perspectives on the three misconceptions. The solutions I introduce retell truths about the relationship between women and clay. I propose that the issue and desire to remove ceramics from the craft be settled, as I give the example of Eva Zeisel, exposing the craft's grandiose ability to become a masterpiece for the masses. Concerning the dictations of society about women's business in craft arts, we find through the work of Alison Petty Ragguette, that the medium itself has attributes that attract the artist independently. For the issue of the female aesthetic, I introduce Sophia Aguilera Lester's delicate artwork, which embodies the balance in accepting one's femininity and learning to use it strongly to voice liberating statements about the female condition. In these new perspectives I attempt to share with women artists a hopeful outlook about the female involvement in contemporary ceramic art.
Aimee Miller, Psychology

The Construction and Validation of an Online Risk Behavior Scale

Faculty Mentor: L. Mark Carrier, Psychology

The Internet is increasingly a preferred method of personal, professional, and social communication, a platform for commerce, a source of information and leisure, and so much more. According to the International Telecommunications Union (2013), approximately 81% of individuals in the United States access the Internet. In addition, the availability and ease of access continues to expand. Simultaneously privacy and security issues on the Internet have swelled. The potential for explicit and implicit engagement in and exposure to potentially dangerous content, materials, and users online is pervasive. Behaviors and content evaluations influence the exposure to and threat of emotional, financial, and physical harm online. How humans interact with technology has been of increasing interest to social behavioral scientists. However, no extensive measure of online risk behavior currently exists. Consequently, this study sought to develop and validate a comprehensive measure of online risk behavior. Forty-two items were included in an online questionnaire designed to evaluate the quality, scope, and type of individuals' communications, interactions, evaluations, precautions, etc. when using the Internet. Five hundred and thirty college students were recruited from classes at California State University, Dominguez Hills. Correlation and exploratory factor analyses were conducted to examine the item structure and scale reliability. Based on the results of analyses, sub-scales were created and considered. This scale has several applications across disciplines. The development of a comprehensive and reliable online risk behavior scale will facilitate future studies examining the relationship between online and offline behaviors, as well as other online phenomena.

Aimee Miller, Psychology

Individual Risk Factors for Recruitment, Trafficking, and Victimization on the Internet

Faculty Mentor: L. Mark Carrier, Psychology

Human sex trafficking (HST) is the harboring, receiving, recruiting, or transporting of a person for the purposes of coerced or forced prostitution. In the U.S., victims are primarily recruited face-to-face or through online modalities. An increasing amount of cases have been cited in which HST was initiated and occurred in online contexts. Traffickers utilize chat rooms, classified advertisements, and social networking sites to aid and assist in the sexual victimization of adolescents. Adolescents and young adults that participate in risky online behaviors, including agreeing to meet people in-person, disclosing personal information, and receiving or sending personal photographs, place themselves at a greater risk of becoming victims of online crimes, such as HST. Individuals that report participating in high risk behaviors offline, such as substance abuse and unsafe sex acts, also report increased amounts of the aforementioned online risk behaviors. To assess the likelihood of online HST victimization, participants (N=471) read a series of vignettes, simulating predatory and non-predatory communication online, and rated how they would likely feel and behave in response. Participants then completed an online survey assessing digital media usage, depression, executive functioning, family satisfaction, life satisfaction, online skepticism, self-esteem, and trust. The current study sought to address a limitation of the initial study, in that offline behaviors were not assessed. Data is currently being collected for a follow-up study investigating the impact of offline risk behaviors, as well as online risk behaviors, in addition to the constructs assessed in the original study. Ultimately, the results will be used to test a proposed model or pathway to online victimization. The findings from the initial and follow-up studies will substantially contribute to the literature; in addition to potentially assisting advocacy groups, law enforcement, and policy makers in the prevention of HST, as well as informing approaches to intervention and treatment.
Mary Miller, Nursing

Effect of STEP for Teens on Family Functioning

Faculty Mentor: Lauren Outland, Nursing

Adolescence is a challenging developmental period. Physical, social-emotional, and cognitive changes can lead to parent-adolescent conflict. Innate and acquired characteristics can make adolescents more susceptible to environmental influences and less able to adapt to stressful events contributing to depression. Depression significantly increases the risk of suicidal ideation. The family environment plays an important role in the propensity for suicide. Family systems with poor adaptability and cohesion have a heightened potential for suicide.

Significance: In 2010, suicide was the third leading cause of death in the United States among adolescents. Reducing the national number of adolescent suicide attempts by 10 percent is a Healthy People 2020 objective.

Method: The Transactional Model of Stress and Coping will provide the framework for the implementation of the Systematic Training for Effective Parenting (STEP) of Teens to improve family functioning. Parents of adolescents receiving routine mental health care for depression will attend a one and a half hour class, one evening a week, for eight weeks. The McMaster Family Assessment Device (FAD) will be completed pre and post training. Statistical analysis of FAD data will evaluate the effectiveness of the intervention.

Description of the Innovation: Research supports the assertion that a lower suicide risk is associated with parents who are more involved and connected with their adolescents. Additionally, nurturing, supportive family systems where autonomy and confidence are encouraged have been found to offer a protective mechanism against depression. STEP is listed in the Substance Abuse and Mental Health Services Administration National Registry as a mental health promotion intervention for adolescents. The purpose of STEP is to promote parenting efficacy and family organization while encouraging autonomy and confidence.

Teddy Mo, Max Hunt, Angie Mendoza, Occupational Therapy

The Transition Experience of Young Men Reentering Society From the Criminal Justice System Faculty Mentor: Claudia Peyton, Occupational Therapy

In 2011, federal prisons in the United States were 41% above maximum capacity and expert predict this will rise to 45% by 2018. The recidivism rate in the California is higher than 60%. The purpose of this ethnographic study is to explore the lived experiences of young men reentering society after incarceration. The six male participants are ages 18 to 35 and represent a variety of ethnicity including Latino, Black, Caucasian, and Asian. Their interviews revealed the impact of social relationships and environmental barriers on their transitions. The researchers found a relationship between the quality of those relationships and the success of reentry into society. In addition, social stigmas and the allocation of government resources provide hurdles for these men. These transition experiences are important to research because of the high cost of prison overcrowding to state and federal governments. Resources are allocated to housing and caring for inmates that could be used in other ways to improve the quality of life for more citizens. It is important for occupational therapists to research this topic because we need to give these young men a voice. By advocating for improvements in the preparation inmates are given before they return home, and by assisting the communities to be better prepared to receive these transitioning individuals we can help to reduce prison populations and recidivism rates. This research can be used to expose these issues to policy makers so resources can be utilized more effectively. The results of this study suggest that a relationship exists between transition experiences and reentry outcomes. Future research on this topic will help uncover specific interventions to help these individuals during their transitions. Furthermore, future research can help to shift financial resources to providing more preparation and support, as a means of improving this social problem.
Hector Morando, Computer Science

Percussion CM1 Abstract

Faculty Mentor: Mohsen Beheshti, Computer Science

What if there was a way to create your entire company’s website, without the hassle of going through the long process of developing a new website with all of your original content, or hiring a third party designer to create all of your webpages. What if there was a way to create a program that would make any user that has little to no knowledge in HTML, an expert at adding and editing content to their webpages. What if there was a way to keep control over your website, by keeping it consistent, with proper formatting, and will look visually professional. To allow or deny permissions to certain employees just by clicking a few buttons. To overall be a better website, the way your company wants it, and not by what can be done with limited resources or time. Luckily, a company named Percussion has got the answer to all of the problems that most companies face when it comes to creating or revamping their websites. In this research paper I will be going over what Percussion is and how it affects the companies that use it, as well as the comparison between Percussion and other companies that also create software just like Percussion.

Danielle Murillo, Erika Kreisman, Celeste Juarez, Monique Martin, Konstance Kirby, Sociology

Students' Experiences in the Sociology Department at California State University, Dominguez Hills Faculty Mentor: Matt G. Mutchler, Sociology

The sociology department at Cal State University Dominguez Hills (CSUDH) is currently engaging in a self-study for program review. As one added source of data, the purpose of the study is to examine life in the sociology department, specifically focusing on students’ overall experiences within the department during their tenure at the University. These factors include relationships with faculty members, quality of academic advising, reviewing the curriculum designated for graduate and undergraduate students, and departmental administration and communication. The pathway to graduation consists of selecting the proper courses, research apprenticeships, communicating with faculty and staff members about these goals and seeking resources to help them achieve those goals. While there are multiple sources of quantitative data regarding the program, very little qualitative data exist especially regarding the experiences of the students themselves. Our research design includes interviewing current students, undergraduate (N=100) and graduate (N=20), to explore their experiences of the program and express their ideas for improving the department in the future. Preliminary data has been collected during Fall semester resulting in 23 completed interviews. Reoccurring themes include students reporting positive experiences with their peers and faculty members, requesting an increase in course selection and advising along with multiple sections for each topic (e.g., Sociology of Law or Sociology of Mental Health), in addition to the faculty members remarkable dedication to continue to equip students with analytical abilities in preparation for the workforce or post baccalaureate studies, and posting opportunities (e.g., job postings, networking events, internships) on the department office bulletin board available for students to see. Suggestions for effective program planning include examining current curriculum courses offered in addition to incorporating a service-learning component in each sociology course and providing more information on careers related to sociology.
Warren Nanney, Chemistry and Biochemistry

Cost effective ion selective electrodes from metal-azo complexes

Faculty Mentor: Barbara Belmont, Chemistry & Biochemistry

Ion Selective Electrodes (ISE) are used regularly in analytical chemistry to determine concentration of ions in solutions. These electrodes however, are either too expensive ($500+ per unit) or too complex to develop for a classroom level laboratory experiment. We have developed techniques reducing the cost and complexity for designing and performing classroom laboratory ISE experiments. These experiments involved, not only reducing costs of the electrodes themselves, but also reducing the costs of the metering equipment required in a classroom setting. The ISEs created were a membrane type using Ca2+, Mg2+ and Cu2+ ions complexed with either 2,2- (Ethanediyldenedinitrilo)diphenol (GBHA) or 4-(4-Nitrophenylazo)resorcinol (Azo Violet), then homogeneously mixed into a thin layer of plasticized PVC. The success of each electrode was determined first by calibration, then by measurement of a separate "unknown" standardized solution. The electrode was also tested for interference by taking measurements of solutions with possible interfering ions. Measurements were also taken on different meters to verify accuracy of less expensive meters. A small cohort of Quantitative Analysis student volunteers successfully executed a draft ion selective electrode experiment based on this research.

Carlos Narez, Alberto Aguilar, Daniel Ayala Shakeena Weber, Digital Media Arts

"Fight Club"

Faculty Mentor: George Vinovich, Digital Media Arts

This music video featuring local rap artist, M. Rio, tells the story of a woman who is fighting to survive a serious medical condition. Co-producers, Carlos Narez, Alberto Aguilar, Daniel Ayala, and Shakeena Weber, took this project through the entire production cycle: pre-production (script writing, auditioning actors, location scouting, storyboarding, and creating shot lists) to production (crew assignments, lighting, art direction, camera, and directing the actors) and finally to post production (video editing and graphics production) with the goal of telling an inspirational story of fighting to survive.

Carlos Narez, Digital Media Arts

Drug Abuse (PSA)

Faculty Mentor: George Vinovich, Digital Media Arts

"Drug Abuse" is a thirty seconds public service announcement of a coming of age young Man with emphasis on drug addiction. The young man goes through a cycle were he experiments with many drugs and at the end he just ends up depending on them. The "Drug Abuse" psa demonstrates the reality of what drug addictions does, which is to isolate people and then little by little destroy them. This video was not only made to show case the darkness that drug addiction can bring to one's life in many areas but to also bring awareness that drug addiction is very dangerous and it can end any bodies' life.
Spencer Nelson, Health Science

The role of aggression as a mediator between the association of risk behaviors and sporting activities Faculty Mentor: Enrique Ortega, Health Science

Hypothesis: This study investigated the possible role of aggressive behaviors as a mediator between the association of risk behaviors and sports involvement.

Rationale: Involvement in sporting activities has been shown to be positively associated with risk behaviors. Few investigations however have tried to explain what other factors are possibly involved in this association. This study proposed aggression as a related factor to this association

Methods: The sample consisted of 302 Italian high school adolescents (48% female), ages 15-19 years (mean age = 17.4 (S.D. = 1.4)). The participants were representative of the population of adolescents attending high school in this part of Italy. Linear regressions were used to explore the associations of among our variables of interest. This investigation employed secondary analysis investigative methods.

Results: Following Baron and Kenny's test of mediation, results indicated that higher scores on a risk behavior index were associated with greater involvement in sports activities (β = .359, p < 0.001). Once aggression was included in the model the observed association between risk behavior and sporting activity dropped out of significance (β = .254, p < 0.067) indicating the possible mediator role of aggression in this relationship.

Principal conclusions: Understanding such potential problematic behaviors as aggression and risk involvement can assist prevention specialists to develop interventions aimed at helping to focus such behaviors in more prosocial ways. Sports involvement can serve as an outlet for a number of behaviors and dispositions that can sometimes be negative in the lives of adolescents. These findings could help inform prevention efforts in the field of adolescent deviant behaviors

Dylan Nicholas, Physics

The CLAS12 High_Threshold Čerenkov Counter

Faculty Mentor: John Price, Physics

As part of the general upgrade of the CLAS detector at the Thomas Jefferson National Accelerator Facility in Newport News, VA, the electron identification system is being updated. A new subsystem, the CLAS12 High Threshold Čerenkov Counter (HTCC) is being built for this purpose. The HTCC, together with the existing Low Threshold Čerenkov Counter (LTCC) is designed to provide highly efficient electron detection as well as the possibility to positively identify pions. The HTCC will use CO2 to 5 GeV/c. Much of the preparatory work for the design of this device has been completed, and the construction is underway. There were three main tasks related to the construction this past summer. First, the largest single task involved the construction of the containment vessel of the HTCC, providing the superstructure for the detector. Second, the mirrors for the HTCC were assembled and tested. Third, the reflectivity of the Winston Cones, an integral part of the light collection system for the HTCC, was tested. This talk will introduce the design parameters for the upgrade of the HTCC, and will present the status of the work thus far. (index of refraction = 1.00045) as a radiator, giving it the ability to reject pions up.
Jessica Obenberger, Laura Perez, Natasha Wolhein, Occupational Therapy

A Narrative Analysis Exploring Individuals' Lived Experience of Chronic Pain Over Time

Faculty Mentor: Claudia Peyton, Occupational Therapy

PROBLEM: Chronic pain affects a large portion of the adult population in the U.S. and worldwide. Due to its various underlying causes and the range of ways in which the condition presents itself, chronic pain can be difficult to manage and treat. The experience of living with chronic pain can have debilitating consequences, affecting the social, occupational, and personal aspects of daily living, and can significantly impact the quality of life of individuals living with the condition. The purpose of this narrative study is to chronicle the lived experience of individuals with chronic pain. PARTICIPANTS: Six adults, ages 25 to 58, who have experienced chronic pain for at least the past 2 years. METHOD: Participants' open-ended interviews were re-storied chronologically and analyzed using a narrative analysis approach and 3D matrix model. Through this analysis, we examined participants' personal, social, and temporal contexts of their experiences with chronic pain and synthesized these findings into a merged matrix from which we extracted four major themes. FINDINGS: Data analysis revealed four common themes across participants' stories: participant's role as victim or agent, pain as constant presence, enduring negotiation, and isolation. CONCLUSION AND IMPLICATIONS: This study adds to an understanding of how individuals with chronic pain describe their experiences with the condition over time. This information can be used by occupational therapists to assist this population in regaining control and independence within their lives.

Oscar Ochoa, Special Majors: IDS

The California Crucible: 19th Century Frontier Narratives and the 1851 Lynching of Josefa Segovia

Faculty Mentor: Maricela Chavez, Chicana/o Studies

Drawing from several scholars, this study advances a discussion about the role narratives play in controlling representation of the Mexican (image, character, as Other) during the years leading up the U.S.-Mexico War and the decade that followed. While lynching and mob violence in the United States have been examined academically since as early as 1905 and the subject was publicly introduced by news journalists starting in the late 19th Century, most of the scholarship in the last century focused primarily on the experiences of African Americans in the American South.

Over the last two decades, academics from different disciplines expanded the range of this scholarship through innovative approaches ranging from cultural studies to, recently, approaching primary documents through narrative analysis. Current trends in lynching studies increasingly consider the American southwest, California in particular, as fertile ground for revisionist histories. In this field of research, the 1851 lynching of Josefa Segovia, considered the only Mexican woman to be lynched in California, captured the interests of many Chicana/o Scholars starting in the 1970s.

Historians' narratives, newspaper accounts, and other forms of literature about people of Mexican origin during the 19th Century offer insights into the ways narratives functioned to justify anti-Mexican or anti-Latino mob violence. This study describes how these narratives served to justify violence perpetrated against Mexican-Latinos during 19th Century frontier history through an examination of a variety of written accounts of the lynching of Josefa Segovia.
Josefina Olvera, Psychology

Sexual Attitudes and Behaviors

Faculty Mentor: Keisha Paxton, Psychology

Studies have indicated that males tend to be more liberal in their attitudes about sex and sexual behaviors. However, effect size has indicated small differences. To further understand gender differences on sexual attitudes and behaviors the current study assessed gender differences concerning the acceptability of premarital sex, extramarital sex, and sexual behaviors. The extent of gender differences was also assessed. There is limited research that indicates relationship involvement on sexual attitudes and behaviors. Thus, the current study examined whether sexual attitudes and behaviors differed based on level of involvement in a relationship. College undergraduate males (32.8%) and females (67.2%) completed an online questionnaire composed of numerous scales assessing sexual attitudes and behaviors. It was hypothesized that males would indicate greater approval of various sexual behaviors, and indicate greater approval of premarital sex and extramarital sex than females. Also, it was hypothesized that individuals reporting being in a less involved relationship would indicate greater approval of extramarital, premarital, and certain sexual behaviors than those individuals reporting being in a more involved relationship. Findings suggest differences in sexual attitudes and behaviors based on gender and level of involvement in a relationship. Such information can be useful in creating gender specific and other tailored preventative STI interventions.

Karen Orellana, Public Administration

Leadership and Organizational Performance in the Public Sector

Faculty Mentor: Hugo Asencio, Public Administration

Past theoretical and empirical developments in the mainstream organizational literature have greatly increased our understanding of the relationship between different leadership behaviors and organizational performance. Nevertheless, in recent years very little empirical research has been reported in the public administration literature investigating these relationships. This study seeks to fill this gap in the literature. The study will employ survey data on federal employees to answer the following research question: 1) what is the relationship between different leadership behaviors and organizational performance? This study seeks to contribute to the dialogue about the significance of leadership in government settings to improve organizational performance.
Natasha Owen, Julie Seng, Amy Shibel, Occupational Therapy

Experience of Cell Phone Use among College Students

Faculty Mentor: Claudia Peyton, Occupational Therapy

The benefits of technology are obvious, however not enough research has been done on how cell phone use and overuse may affect participation in meaningful occupations. This study takes an in-depth look into the essence of cell phone use among its most prolific users, college students. The experiences of college students between the ages of 18 and 30 years were analyzed using a transcendental phenomenological approach. Purposeful and snowball sampling of students at CSU Dominguez Hills occurred. Seven students participated in in-depth serial interviews that explored the use of cell phones in multiple contexts. Results were analyzed and three overarching themes were derived. The meaning of cell phone use among college students exposed multiple dichotomies. The themes included (a) cell phones are contributors as well as detractors from occupations, (b) positive and negative emotions are associated with cell phone use, and (c) the experience with technological advancements inform cautions for future generations. The meaning of cell phone use by college students is perceived as impacting all aspects of their daily lives to a significant extent. The students' reflections on their experiences inform us not only of the importance of cell phone use in their lives, but of their appreciation of physical interaction. They caution current and future generations who are immersed in technology to explore physical interaction and learn from those experiences as well. The results of this study imply the need to redefine such occupations as social participation to reflect the inclusion of the virtual environment across all domains of occupational therapy.

Alejandra Palacios, Gustavo Luna, Arts and Humanities

Intextication: Driving While Texting

Faculty Mentor: Michele Bury, Arts and Design

Texting while driving is slowly becoming a large epidemic that is spreading among young adults. Through our campaign, "Intextication" we managed to spread awareness of the dangers of texting while driving through various different design ideas and marketing. Using design principles, our design group for "Intextication" has made various deliverables such as enticing campaign posters, car and window decals, bumper stickers, phone covers and key chains. With these deliverables, we have successfully raised money for the Jacob Hefter Foundation, a grassroots foundation dedicated to spreading awareness of the dangers of texting while driving. The founders of the Jacob Hefter foundation lost their child, Jacob Hefter, to the Metro Link Accident, where the driver responsible was texting while driving a train. We felt compelled to assist the foundation, thus our campaign began. Using both online campaigning as well as real-world interaction, "Intextication" has given many students the opportunity to learn how to put the phone down while behind the wheel. Setting up a gofundme account and using the social network to our campaign advantage, we have managed to raise enough money to reach our $250 goal. Overall, because of our unique title and design concepts, the campaign were successful in reach its goals of raising awareness to the texting while driving epidemic.
Jose Perez, Biology

Anaerobic Polychlorinated Biphenyl (PCB) Bioremediation in Soil

Faculty Mentor: John Thomlinson, Biology

Polychlorinated Biphenyls (PCBs) are aromatic compounds that were widely used in transformers and capacitors in the first half of the 20th century. However, later studies suggested these compounds were likely carcinogens. Unfortunately, their stable structure made them persistent organic pollutants, so degrading them by thermal, chemical, and biochemical processes was not only difficult but also very expensive. Recent studies have shown that certain bacteria in the environment can break down PCBs. Certain organisms seem more directed to the degradation of certain PCBs due to the specific chemical structure. This research focuses on testing the Dominguez Channel at the Gardena Willows Wetland Preserve for possible PCB pollution, and for bacteria that could be aiding in the degradation of PCBs. We collected soil samples in the field and dosed them with an array of different PCB congeners. The samples were maintained under anaerobic conditions for 60 days and then analyzed by Gas Chromatography Mass Spectrometry (GCMS). The results are currently being analyzed.

Marvin Perez, Computer Science

Virtualization

Faculty Mentor: Mohsen Beheshti, Computer Science

It is the nature of all technology to grow in sophistication and complexity, especially technology most relied upon by the masses. This is the very reason why the computer technology world is fully engrossed in Virtualization – the process of separating various pieces from the hardware components, so that users have more control and flexibility. Virtualization compartmentalizes components of computer technology, making those components easier to maneuver, manage, change, and manipulate. Virtualization is currently the best way to ensure that computers keep up with the demands of the users. It is a means of providing increased storage, security, control and flexibility at a reasonable cost. The following research paper explores key aspects of virtualization in the IT world. Some of these aspects include: a description of virtualization, what areas are virtualized and how, the pros and cons and what companies are leading the marketplace.

Augustine Perez, Earth Science

Potential use of the Los Angeles River

Faculty Mentor: Ralph Saunders, Earth Sciences, Geography

The research presentation I propose focuses on the potential use of the water in the Los Angeles River for human consumption. The main concern of the proposal is the finding ways to quantitate and how to send the water for purification while providing additional options to prevent degradation of the surrounding wildlife that depend on the river for survival. Reusing the water from the Los Angeles River is a difficult problem to take on, because of the ongoing political conflict with government agencies. This dilemma breaks off into multiple sub problems that range from removing local populations from their homes, allocating necessary funding for the project, mitigating environmental damage and developing renewable energy within the river. The project is too complex to keep small but these stated problems can provide a general idea of what I can present within the allotted time limit.

To achieve the objective of the presentation, I will implement GIS maps displaying data on income levels of the population and population density that live within the Los Angeles River. Photographs of locations where prospective water treatment plants can be built to maximize efficiency by using satellite imagery. Additionally, the use of hydrological data will provided by the USGS website to formulize an amount of water needed to be cached in the river to allow for consumption.
Daniel Polster, Carolyn Thomas, Stephanie Wagner, Occupational Therapy

Transition Experiences of Military Spouses and Domestic Partners: An Ethnography

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this qualitative study is to explore the change in the culture experienced by the spouses and or domestic partners of active duty military members transitioning from military to civilian life using a realist ethnographical approach. Ethnography is best suited for this study because we are interested in the cultural transition from active duty to civilian life and how it affects values, behaviors, and beliefs of the spouses and domestic partners of military personnel. Six female participants selected were the spouses of veterans of the opposite sex who have transitioned along with their service member from active duty to civilian life. They range in age from 24 to 60. Data collection occurred through audio recorded, semi-structured interviews of the spouses or domestic partners of military members, as well as notated observations in the field. To reduce the data, Wolcott's (1994) three processes of data reduction: description, analysis, and interpretation were used. The interviews were transcribed verbatim and coded, and patterns were sought. A total of 77 codes arose from the independent analysis of the interviews, from which 12 themes emerged. These themes were condensed into four overarching categories: military life, struggles in returning home, trouble in relationships, remnants from military culture. Photos brought in by participants were used to further support and visually represent the themes and categories that arose in the data reduction process. Themes were described and vignettes were used to demonstrate these categories. Findings may help occupational therapy personnel to better understand the implications of culture shock associated with transition from military culture to civilian culture on the occupational engagement of spouses and military members.

Diego Prechtel, NCRP

The International Criminal Court vs. Kenya: Justice for Victims of Crimes against Humanity or Motivated by Anti-African Bias?

Faculty Mentor: Margaret Manning, Negotiation, Conflict Resolution and Peacebuilding

The International Criminal Court (ICC) has an ongoing investigation into the responsibility for the 2007 post-election violence in Kenya after Odinga of the Orange Democracy Movement (ODM) was predicted to win, but Kibaki of the Party of National Unity (PNU) was reelected amid accusations of fraud. After failed attempts to conduct a criminal investigation within Kenya, it was referred to the ICC which charged six people of crimes against humanity including deportation, murder, persecution, and rape in December 2010. Three of the accused were members of the government PNU party and the other three were members of the opposing ODM party. Subsequently, charges were dropped leaving three to stand trial: Uhuru Kenyatta, the current president of Kenya; William Ruto, the current deputy president; and Joshua Sang, a radio presenter. This is the first time that trials for standing heads of state have been conducted and Ruto's trial is ongoing although he has refused to appear. Kenyatta's trial was deferred after the Westgate Mall attack and has been postponed yet again for three months due to problems with testimony from witnesses. The ICC trials uncovered the rift between African nations and international peace agencies, namely, the African Union (AU) which decried the ICC's targeting of African nations and urged withdrawal en masse. However, former U.N. Secretary-General Annan encouraged members not to withdraw and that justice would promote peace. The AU demanded immunity for ruling heads of state and the U.N. Security Council agreed to defer the trials for one year. Amnesty International also urged Kenya to cooperate with the ICC to get fair process for the Kenyan people, the victims and the leaders charged. Whether the trial results will be accepted remains unpredictable and could lead to further instability in Kenya and have serious implications for the future of the ICC.
Samori Price, Computer Science

Word Frequency Entity Correlation Data Visualization Application

Faculty Mentor: Antonia Boadi, Computer Science

All news feeds have a place in which the subject of certain articles occur. If those places were able to be identified and tagged geographically, people would be able to find a wide variety of location-specific information. This project focuses on geotagging articles and displaying them in a graphical user interface. Geotagging is the process of applying geographical identification metadata to any media. The media used for geotagging was RSS feeds from around the world, collected over the course of a month from many of the most well known news sources websites, such as nytimes.com, reuters.com, cnn.com, etc. A database was created from all the words obtained by stripping the feeds of punctuation and capitalization and leaving the words only. My research is aimed toward analyzing the geotag metadata in a graphical and user friendly application. The application displays a line chart of the frequency of certain strings in our database. Users are able to search the database and observe an xy plot of data from global news. Other features of the application include integration, deviation, variance, and averages of the graph data. A heat map of the data was also implemented. It plots the longitude and latitude of the various RSS feeds' geographical source on a map, displaying "hotter" points were a group of data are together.

Daniel Ramirez, Computer Science

Intrusion Detection and Prevention Systems

Faculty Mentor: Antonia Boadi, Computer Science

As a network security administrator your top priority is to have a secure network. Employees and Clients alike depend on the services/application that are provided by the company's systems. If the company's service were rendered unavailable or some form of theft occurred. This can damage a company’s reliability and reputation. It also could mean a significant monetary loss for the company. According to the Internet Crime Complaint Center's Crime Report (2012) total loss in monetary damages were estimated at half a billion dollars. They way to detect and prevent these crimes from happening is to employ Intrusion Detection and Prevention System (IDPS). An IDPS is designed to protect a company's valuable assets. It is an extra layer of security along with other existing devices. It also helps the company monitor policy violations which is one of the main reasons companies are suffer stiff fines and penalties. This research paper will cover IDPS systems explaining some fundamental concepts behind IDPS, it uses, it capabilities, implementation and management.

Paula Ranson, Nursing

Improving Glycemic Control Among Incarcerated Men

Faculty Mentor: Lauren Outland, Nursing

According to studies, patients with an HbA1c greater than 9% have a predicted higher mortality risk than their diabetic counterparts with glycemic control. Following Healthy People 2020's goal for glycemic control and utilizing the Health Promotion Model (HPM) as a framework that includes nursing and behavioral science perspectives, at one high-security prison in California an established program seeks to improve glycemic control through improved health literacy and autonomy. Incarcerated men with poor glycemic control as evidenced by a HbA1c of 9% or greater are assigned a nurse case manager who coordinates a multidisciplinary team and provides intensive ongoing support. Incarcerated subjects in this program are allowed to carry an assigned glucometer and self-monitor their own blood glucose levels. Serial HbA1c levels and other clinical indicators are utilized to identify improvement in glycemic control and determine ongoing care needs. This project reports on the results and potential value of such a program.
Amanda Reyes, English: Rhetoric and Composition

Drifting through Composition: What does Space have to do with it?

Faculty Mentor: David Sherman, English

With the increase in vocational schools and online degrees, the necessity for “traditional college” education is decreasing. Educators are forced to deal with students who are unaware of university life as a culture and unprepared to participate within it. It is important for educators to create an opportunity for students to think critically about their role within the university, so that the classroom is a space for recognizing multi-cultural and socio-economic challenges that affect college purpose and thus student identity. Scholars Guy Debord, John Ackerman, and Jeff Rice are currently creating new ways of using multiple modalities- written, digital, audio, and textual- of composition as a bridge between student experience and university discourse.

I coupled Debord’s theory of the “Derive” with Ackerman’s “Georhetorical Method” to design a Campus Walk teaching unit for first year English composition courses. For Debord, a Derive is a walk that requires one to read space and architecture through a psychological and socio-economic lens. This “psychogeographic” perspective works hand in hand with Ackerman’s focus on the relationship between student and institution. Students then become more aware of university discourse and their role within it allowing for critical reflection and analysis on the ways our insecurities and prejudices predetermine relationships between composition, institution, and student identity. In laying out various examples of the Campus Walk assignment, both student’s and my own, I hope to shed light on the ways multimodal pedagogy facilitates reevaluation of student experience within a college environment. By introducing and then encouraging students to follow the lead of Debord and Ackerman, students will be better informed and positioned to understand the connections between rhetoric, composition and space. Students will have the tools to read and analyze social, cultural, economic, and architectural juxtapositions surrounding a university that ultimately influence student identity and purpose.

Greg Riddle, Information Systems & Operations Management

An Empirical Analysis of Risk Management in IS Development

Faculty Mentor: Myron Sheu, Information Systems & Operations Management

As the success rate of IS development (ISD) continues to be lackluster, this study investigated current trends in IT projects and analyzed how the levels of risk associated with six related categories impact the success chance of an IT project. Tech status, required volatility, complexity, producing ability, criticality and cost were examined on thirty survey reports. The purpose of this research is to identify how major risk factors are handled and how they affect the success rate of ISD and also ROI in the long run. A consistent questionnaire was used in determining risk levels across all thirty surveys. Of the risk driver "Criticality", twenty one (70%) reported a high risk level. Of those twenty-one projects, seventeen (81%) were classified as having medium to high risk drivers in complexity. Interesting to note is there are eleven projects with high risk in complexity and criticality. Of those eleven, eight (73%) have a low or medium tech status risk driver. This indicates that a high percentage of critical and complex projects tried to avoid unfamiliar technology. Labor reduction, improved productivity and materialization of business opportunities were three quantitative measures used to determine the success of these projects. Of the thirty projects, 50% reported a reduction in labor. 90% improved productivity and 70% had new business opportunities materialize as a result.

This study reveals that higher levels of risk in criticality and complexity do not necessarily translate to higher tech status risk levels. With a majority of tech status risks being low to medium but high in "Criticality" and "Complexity", we infer that project managers may have chosen to avoid unnecessary risks. This study also demonstrates that IT can help improving productivity and materializing business opportunities, but only those companies that know how to handle resultant risks can ultimately benefit from IT initiatives.
Tiearea Robinson, Africana Studies

The Narrative Aspect of the Spirituals

Faculty Mentor: M. Keith Claybrook, Africana Studies

This chapter investigates the spirituals as narratives of the enslaved Africans' experiences. The lyrics of the spirituals capture the pain and truth of their experiences. Speaking of lived experiences through song is a cultural retention. An analysis of the lyrics from selected spirituals will illustrate how they function as narratives of the experiences of enslaved Africans as a whole. The spirituals as slave narratives are important because it is the enslaved Africans' method of telling their truth. The lyrics of the songs are an embodiment of what the enslaved Africans endured as a collective group of people. The lyrics display the hurt and abuse handed to them while illustrating the hope they have for a better tomorrow. Furthermore, it is a truth telling of the experiences with an installation of hope embedded in the lyrics of the songs. These spirituals as slave narratives become part of a larger narrative preserving the history of enslaved Africans.1

Jose Rodriguez, Health Science

The possible role of alcohol use as a coping mechanism of school stress among adolescents.

Faculty Mentor: Enrique Ortega, Health Science

This study investigated the potential association between school stress and alcohol use among a group of European adolescents. I hypothesized that a positive correlation would exist between the experience of school stress and alcohol use. The literature in this area of study indicates that while alcohol use is mostly experimental among this population, there is a need to understand what other functions alcohol may play in an adolescent life, for example as a coping mechanism to deal with school-related stress. Furthermore, there is a need to explore the possible role of gender in this potential association. The sample consisted of 475 Italian and Dutch adolescent boys (52%) and girls (48%) ages from 15 to 19. The participants were representative of the population of adolescents attending high school in northern Italy and Holland. Bivariate correlations and t-tests were used to explore the hypothesized associations. This investigation employed secondary analysis investigative methods. T-tests revealed that there were no mean gender differences in the perception of school stress or in alcohol use. The test of correlation showed that school stress and alcohol drinking were significantly associated but in a negative direction (r = -.174, p < .001). These findings suggest that alcohol use among adolescents may still only be used for experimentation purposes and not as a coping mechanism for school-related stress. Further studies are required which can help investigators further understand the role of alcohol on adolescents' lives and their coping mechanisms.
Matthew Roesger, Brian Herrera, Rosalie Tallud, Computer Science

Mathematical modeling of an infectious disease in closed population

Faculty Mentor: Antonia Boadi, Computer Science

The modeling of diseases gives insight to its spread and prevention, based on the variables of transmission, latency, and social contact. Many different variables come into play based on the type of disease being modeled and the different factors that come with each new infectious disease. The Herpes simplex-II virus is modeled with sexual contact as well as variations of transmission between males and females. Using a closed population such as a student housing area, with set population modeled over the course of one year, we will be able to determine the susceptibility and spread of HSV-II throughout a set of college undergraduates. Transmission of the virus is being modeled through the SEIRS model, while the simulation as a whole makes use of the classic Monte Carlo computer algorithm. This type of research will further knowledge of human interaction between individuals with the spread of the HSV-II virus.

Jeffrey Rokkum, Psychology

Final Fantasy: Magical Thinking and Fantasy Proneness

Faculty Mentor: L. Mark Carrier, Psychology

Magical thinking is causal reasoning that looks for relationships between unrelated acts and corresponding events. Magical thinking influences people's actions and their ability to find new information. Fantasy proneness is a likelihood of experiencing a lifelong, extensive and deep involvement in fantasy or likely to blurt the lines between fantasy and reality (Wilson & Barber, 1983). The connection between fantasy proneness and magical beliefs is unclear; however Irwin (1993) posited it is mediated by an undefined social construct. One possible mediator is technology usage, which has been shown to alter people's thoughts and opinions. How magical thinking and fantasy proneness is influenced by technology has not yet been investigated. This study examines technology as a mediator variable between fantasy proneness and magical thinking. Participants (N=1127) from CSUDH, from introductory psychology courses to take an online survey that included scales that tested magical thoughts, fantasy proneness, and digital media and technology usage. The media use scale measured social media, Internet and smartphone use, technology anxiety, television viewing and video gaming. Within the magical thinking construct, seven defined factors were explored such as Psi and Extraordinary Life Forms. Multiple linear regression analyses revealed that the number of online friendships one has and how often one communicates with them predicted psi and witchcraft. Smartphone usage predicted traditional Christian religious beliefs, fantasy proneness and superstitious beliefs, which were also predicted by video gaming, online friendships and television viewing. This suggests that when people are more fantasy prone they are more likely to engage in more video gaming as well as interact with people in an online environment more often. Technology usage was a partial mediator between fantasy proneness and magical beliefs for six out of the seven aspects of magical thinking. The implications of this finding is that the social context influences magical belief, supporting Irwin's original notion.
Jeffrey Rokkum, Psychology

Validation of the Revised Paranormal Belief Scale

Faculty Mentor: L. Mark Carrier, Psychology

The Revised Paranormal Belief Scale (RPBS) has been the psychometric tool of choice for decades (Irwin, 1993), and it is one of the few scales that exists to assist in the examination of paranormal beliefs and its correlates. The scale has been utilized by others over its thirty year span by taking the questions and factors at face value, and using those proposed factors to measure what it was claimed that they would measure. This has been used to test varying aspects of cognition and behavior ranging from risk taking, to utilizing magical thinking as an indicator for schizotypal behavior. The RPBS was devised in 1988 by Tobacyk as a more culturally representative version of the original Paranormal Belief Scale developed by Tobacyk and Milford in 1984. Since the publication of the revised scale there have not been any validations testing the accuracy of the scale or the validity of the scale. Based on data from 561 participants from CSUDH, the original structure of the seven factor model of magical was tested. Upon conducting the confirmatory factor analysis the seven factor model was found to be an extremely poor fit, and many new models were tested. It started with the models that were built on a theoretical basis from the initial seven factor model, then trying to salvage the initial model through literature based alterations to the subscales in ways that would allow for similar items to combine into one factor, which allowed for iterations. The initial seven factor model of magical belief that was proposed by Tobacyk and Milford (1983) was not supported by the confirmatory factor analysis and thus an exploratory factor analysis was conducted to see what model if any, was supported by the data. In the RPBS Tobacyk states "this scale appears to be a conceptually and psychometrically satisfactory measure of paranormal beliefs" (Tobacyk, 1988). However this idea is not upheld by the data.

Abraham Ruiz, Psychology

The Impact of Text Messaging in the Classroom: Proposing Metacognition as a Possible Moderator

Faculty Mentor: Louis Mark Carrier, Psychology

As technology has become a popular form of entertainment and social platform for our youth, recent research has found that 92% of university students text during classroom instruction (Tindell & Bohlander, 2012). Although students do not see phone usage during classroom time as harmful, multiple studies show that text messaging during class lecture negatively impacts their academic performance (Rosen, Lim, Carrier, & Cheever, 2011; Barks, Russell, & Ratwilk, 2011; Kuznekoff & Titsworth, 2013). For example, Rosen et al. (2011) found that when participants restrained themselves from replying to text messages they received during a video lecture, they performed better on a memory recall test compared to those who immediately responded to the texts. The researchers suggested that those who were better able to regulate their text messaging behavior had higher levels of metacognitive abilities. Metacognition is the knowledge and regulation of one’s own cognitive processes (Flavell, 1979). The investigator will review the literature on the impact of texting messaging in the classroom and will propose a study that aims to investigate whether metacognition is a moderator of the impact of text messaging in classrooms. It is hypothesized that individuals with higher metacognitive abilities will restrain themselves from replying to the text messages they receive during lecture, and as a result will perform significantly better on the memory recall test than those with lower metacognitive skills. Implications will address individual differences in metacognitive abilities within educational contexts to develop new and effective strategies to increase metacognitive skills among university students.
Shari Saidiner, English

And the Winner Is No One: Conversation Analysis of a Power Struggle Between the Current Press Secretary and a Reporter

Faculty Mentor: Vanessa Wenzell, English

The power differences during a press conference between Jay Carney, President Obama's press secretary, and Jessica Yellin of CNN, is examined and analyzed. Press conferences have a routine as they are a daily occurrence. All participants are aware of the

Briana Salcido, Leilua Satele, Timothy Nguyen, Occupational Therapy

Occupation as a Mechanism for Coping with Dementia: A Phenomenology

Faculty Mentor: Claudia Peyton, Occupational Therapy

By the year 2050, it is projected that 11 to 16 million people will be diagnosed with dementia. The purpose of this study was to understand the perspectives of caregivers regarding how individuals with dementia cope with their illness when given the opportunity to engage in favored (meaningful) activities. The experiences of six caregivers for individuals with dementia, who were or have been caregivers for at least six months, were examined and findings were analyzed using a phenomenological approach. This approach allowed the researchers to discover the essence of the coping of six individuals with dementia who engage in favored activities. Caregivers discussed two main themes associated with participation in meaningful activities: enhanced coping for the individual with dementia and the caregiver and reduced caregiver burden and negative responses from the individual with dementia. Findings of this study have important implications for occupational therapy practitioners working with individuals with dementia and their caregivers.

Guadalupe Sandoval, Margarita Sandoval, Ana Ozuna Mireya Alvizo, Rocio Cerda, Sociology

"Till Death Do Us Part?": Examining the Changing Attitudes about Divorce

Faculty Mentor: Katy Pinto, Sociology

The traditional family form has been altered with an increasing number of divorces (Amato, 2000). This creates a problem in society because the family is viewed as a vital institution (Adams and Coltrane, 2007). Therefore it is important to understand the change in attitudes that has made divorce more acceptable in society despite its effect on the institution of the family. In this research project we note important factors that have altered the attitudes of people towards divorce.

Our research question examined people's attitudes towards the concept of divorce and the scenarios that could make divorce more acceptable in society. We believe one's gender, religion, economic status, and parent's marital status are all factors that can influence attitudes towards divorce. With the results of the study, we may provide a more contemporary outlook about divorce.

Our study used a 23 question survey to assess participants attitudes toward divorce. We recruited a total of 50 participants from Cal State University Dominguez Hills and other individuals from the Los Angeles and Orange counties areas.

Our study found that In regards to the general question "Do you agree or disagree that divorce is usually the best solution when couples cannot seem to resolve their marital problems?" the general opinion shows 58% of the sample agrees with the statement. In general more people saw divorce as acceptable solution to marital problems. While we cannot generalize to the whole population we can speculate that if divorce becomes more acceptable in society there can be changes to the structure of the family unit. It is possible that if the concept of divorce is seen as more acceptable the family form could change and look less traditional.
**Student Research Day 2014 - Abstracts**

**Gwendolyn Satchell, Management**

Do the Right Thing at PSU

Faculty Mentor: Gary Polk, Management

This research paper will outline research findings and results in an incident taking place on a Pennsylvania college campus. The primary goal of this paper is to examine ethical leadership as it varies in cultures and in business. Over a series of events the story of four major school officials and their ethical leadership abilities to properly protect and monitor the safety of small children while being left alone in the custody of a legendary All-American football coach is revealed. In this research paper courage, status, money, image, power, wealth, self-interest and friendship are key factors that contribute to the actions pursued by this Pennsylvania college campuses officials. The morale and culture on campus is analyzed in addition to the restrictions, sanctions, and new bylaws regarding this campus in this paper. Information has been gathered from various perspectives of individuals close to the case and are included as well.

**Lenard Segovia, Computer Science**

Future Forecast

Faculty Mentor: Jianchao "Jack" Han, Computer Science

The world is no longer a slow pace as it was before the Industrial Revolution. Change is constant and inevitable. With the rapid growth of technology come the vast majority of resources available for all who encircle them. How do we keep up with the present and future? People around the world are evolving with new technology and embracing the social media world. The way we walk, the way we talk, the way we wake up in the morning can be circled back to technology. How many of us check our phone in the morning before we brush our teeth or get out of bed? How many of us share the daily occurrences we go through throughout our day with social media? A lot of what lies in the present and future can be tied on the opinions of billions around the world through social media. This is big data, the big picture of the world. Some would say big data would be the telescope of the world but something so massive and overwhelming can be translated into the term data mining, the microscope as oppose to the telescope. With the data obtained by social media, we can translate reoccurring keywords from around the globe. Why social media and not regular news articles and media? A lot of what we obtain from larger corporations is what the corporations want us to see and hear. What better source than getting the source from the people. If there’s a pattern in Syria that a lot of its citizens are unhappy with the government, we can see reoccurring words such as “hate”, “mad” etc. on their tweets. We can use this data to foresee troubles in nations, analytics on what people were experiencing prior to a large event to give insight on future events.
**Vishwa Shah, Napoleon De La Cruz, Anthony Diaz, Chemistry and Biochemistry**

The effect of glutathione on the cellular cytotoxicity of chlorambucil, chlorambucil-tempol and ionizing radiation in MCF-7 breast cancer cells

Faculty Mentor: Teili Wang, Chemistry & Biochemistry

Ionizing radiation (IR) and chemotherapeutic agents work to eradicate cancer cells by producing high-level reactive oxygen species. One of many strategies of tumor cells to survive against anticancer treatments is related with the activation of antioxidative systems. Our studies have shown that an antioxidant protein, Peroxiredoxin II (PrxII) is upregulated in radioresistant breast cancer cells and siRNA that inhibited PrxII partially reverse the resistance phenotype by lowering glutathion (GSH) level and altering intracellular reduction-oxidation(redox) status. In this presentation, we show that breast cancer resistance to IR is due, in part, to the alterations in GSH antioxidant system. MCF-7 breast cancer cells were largely depleted of GSH by treating cells with the GSH conjugating agent diethyl maleate. Exposure of MCF-7 breast cancer cells to ionizing radiation and anticancer drug agents, chlorambucil and chlorambucil-tempol showed that the cytotoxicity of chlorambucil and IR was markedly potentiated by GSH depletion in the cells while the cytotoxicity of chlorambucil-tempol complex was not. Clongenic and cell viability assays were performed to examine the cytotoxicity of IR and chemotherapeutic agents. The results indicate that chlorambucil and IR are likely detoxicated by the GSH oxidation-reduction cycle.

**Jessica Sharpe, Microbiology**

Rhizoremediation For PCB Contaminated Soils

Faculty Mentor: John Thomlinson, Biology

We investigated the rate at which polychlorinated biphenyls (PCBs) could be degraded by willow-root associated bacteria under aerobic conditions. The project focused on microbial populations in the soil of the Gardena Willows Wetland Preserve because historically the Dominguez Watershed is known to have high concentrations of PCBs. Willow roots (with respective microbes) were collected close to one of the water inlets to the preserve. These were spiked with an array of PCB congeners and left under aerobic conditions for 60 days. After 60 days the PCB was extracted from the soil by a series of isolation techniques including column chromatography and analyzed for degradation by Gas Chromatography Mass Spectrometry (GCMS). The results will be available in late January of 2014, tentatively.

**Taline Shishoian, Biology**

Disrupted Gene Expression In Human Cerebral Cavernous Malformations

Faculty Mentor: Rebecca Stockton, Pediatrics; LABioMed

Cerebral Cavernous Malformation (CCM) is a serious human disease affecting 35 million people worldwide, characterized by grossly dilated brain capillaries forming clustered caverns. CCM is caused by familial (inheritable) mutations in KRIT1, CCM2 or PDCD10 genes, or sporadic occurrence of unknown origin. Hemorrhagic stroke may occur and symptomatic lesions are removed surgically since no drug therapy exists. All three CCM genes are expressed in all tissues, so inherited mutations might be expected to produce vascular lesions everywhere. Instead CCMs are confined to the brain, suggesting there are brain capillary-specific additional genetic disruptions contributing to CCM pathology. My project focuses on assessing expression of target genes in CCM endothelial cells to identify commonly deregulated genes in both familial and sporadic CCMs. I purified RNA from resected human tissue, then performed Reverse-Transcription PCR to synthesize a cDNA library representing differential expression between sample and control normal endothelial cells. We conducted gene expression studies first by microarray to identify target genes, then validation using quantitative PCR (qPCR) to compare normal and diseased tissue, to determine statistically significant changes in CCM samples. We find disruptions in functional GO cluster groups.
Martin Simpson, Veronica Lepez, Computer Information Systems

Project Easy Med: Dignity and Ease in Pill Management

Faculty Mentor: Elvira Teller, Information Systems & Operations Management

Organizing and remembering to take your medications can be confusing and burdensome, especially if you are taking several different medications throughout the day. Common pill organizers are degradingly bulky, over simplistic or overly complicated to operate, and are prone to human error. With Easy Med, individuals can regain control of their day-to-day lives. Easy Med is a pill organizer that will simplify the way you manage and take your medications. Each pill organizer has four color coded pill dividers for each day of the week. Each day is broken into four periods denoted by text and color. These four periods correspond with the programmable alarms of the Easy Med alarm clock. The Easy Med alarm clock and each day section of the organizer individually detaches for travel convenience. The combination of these features will ensure you maintain your medicine regime with dignity and ease.

Alongside the development of this new product is the development of Easy Med's Marketing and Purchasing system. This Web-based system will be the only method for customers to access information regarding Easy Med and to purchase Easy Med. At the Easy Med website customers can read about Easy Med's distinguishing features, and see Easy Med's dimensions and its overall look. Customers can also read blog posts by Easy Med's creator, and read the comments of other Easy Med customers. Most importantly, through this website, the customer can purchase Easy Med.

Brenna Smith, Anthropology

The Archaeology and (Unofficial) Ethnography of Thornton Abbey, UK

Faculty Mentor: Jerry Moore, Anthropology

I spent the summer of 2013 sleeping in a tent in the English countryside, engaging in archaeology by day and ethnography of my fellow archaeologists at night. My final research paper outlines the archaeological methods used in excavating Thornton Abbey, a remnant of King Henry's execution of the Catholic Church, a dissolved monastery now in ruins. While conducting the archaeological excavation of the Abbey, I also observed my fellow archaeologists, most of whom were students of Sheffield University, and my final paper outlines the archaeology as well as the habits and observations I made of the archaeologists. The purpose of the excavation itself was to find evidence of the post-medieval application of the lands, specifically looking for the home of a Sir Vincent Skinner, a man knighted by the King and given the Abbey lands as a reward for his loyalty. After three years of excavations, the year I attended field school was the year the foundations of Skinner's house was found, but this discovery was forgotten in the wake of a far more sensational discovery (much to the dismay of the senior archaeologists): a nondescript pit excavated due to a geophysical anomaly on the survey of the grounds. The pit was discovered to contain more than 30 human skeletons in a mass grave. This allowed me to gain hands on experience with handling human remains, as well as conducting traditional archaeology of ruined structures and artifacts. In addition, this allowed me to study how archaeologists act in two realms: the professional and the private. My final presentation integrates the archaeology, the implications of the various discoveries, and an examination of the culture of student, professional and amateur archaeologists.
Brenna Smith, Luis Gomez, Odeth Martinez, Anthropology

LGBTQ and Disabled Student Diversity on CSUDH Campus

Faculty Mentor: Jerry Moore, Anthropology

Diversity is one of the traits California State University Dominguez Hills most prides itself on in its recruitment policies, yet the University primarily focus on the aspects of ethnic and gender diversity. While CSUDH's level of diversity is impressive and worthy of praise, the focus on only these two forms of diversity leave other underrepresented minority groups forgotten. With this in mind, our research focused on highlighting the representation levels, comfortability and support systems for LGBTQ and disabled students on the CSUDH campus, using the national university accreditation program STARS (Sustainability Tracking Assessment Ratings System). Using four main research techniques, we attempted to measure the aspects of LGBTQ and disabled student diversity on campus. A structured questionnaire distributed via judgmental and convenience sampling was used to gauge general comfortability and success rates, and more one on one interviews with relevant faculty, staff and students provided a more in depth look at this area. We also utilized on campus observation of students as well as photo elicitation to provide data to supplement the questionnaires and interviews. The technical report compiled from our research outlines how comfortable and included members of these marginalized groups feel as part of the greater student body, and gives recommendations on how the CSUDH administration can attempt to bridge this gap and gain STARS accreditation in the diversity category.

Juliana K. Soto, Syliva Thomas, Son Ly Celeste Juarez, Sociology

Judgmentalism Is Related To Poor Sexual Communication Between Close Friends: A Research Workshop

Class Study Of University Students

Faculty Mentor: Matt G. Mutchler, Sociology

Little is known about the relationship between judgmentalism in communication regarding sexual health topics among friends, although such communication may influence safer sex behaviors. We developed the construct of judgmentalism based on previous qualitative research because it was a common theme in sexual communication between young adults and their friends. We conducted univariate and bivariate analysis using SPSS. The items we used to measure judgmentalism were "I sometimes leave out details about my sexual experiences when talking with my friend.", "My friend sometimes calls me a slut or a whore (even as a joke).", and "My friend has called me stupid or dumb for having sex without a condom." Sexual communication was measured using adapted standardized items. The convenience sample consisted of 406 participants, of which (58.1) % were female and (41.9) % were male. The race/ethnicity of the participant sample was (36.9)% Hispanic, (33.3)% African American, (15.6)% white, (6.7)% Asian-Pacific Islander, (3.7) Native American, and (5.4)% other. The age range of participants was 18-21 = (28.7)% , 22-25 = (32.2)% , 26-30 = (17.4)% , 31-40 = (9.1)% , 41-50 = (7.4)% , 51-60 = (4.9)% , and 61- or older = (0.2)% . We found that judgmentalism was related to less communication and a lower quality of communication on many of the sexual health topics we measured (P<.05). Addressing judgmentalism in sexual communication between university students and their friends may improve the extent and quality of communication, thereby supporting sexual health behaviors such as safer sex. More research is needed to explore the construct of judgmentalism and how it may influence the relationship between sexual communication and sexual health behaviors.
Ingrid Steiner, HUX

William Byrd II: Portrait Collector

Faculty Mentor: Kirstin Ellsworth, Art and Design

William Byrd II was a seminal figure in the history of Virginia. Considered the founder of Richmond, Byrd was born in Virginia, but split his time between London and the Colonial South. He was a successful plantation owner, who is best known as typifying the English gentry and the emerging American Colonial gentleman. Byrd valued the British humanities in which he was educated; he held the largest private collection of books and portraits below the Mason-Dixon Line. Research on William Byrd II's portrait collection has been scarce. Most of the biographical research on Byrd was done in the late 1800s and the early part of the 1900s, with little relating to his artistic pursuits. Even Byrd, throughout his diaries, left little information in regard to his art collecting activities. A Portrait of a Woman, the basis of this research, is at home on the racks in storage in The Maier Museum of Art in Lynchburg, Virginia. The painting was part of a donor's "old family pictures" from her husband's first wife, a descendent of William Byrd II.

This presentation places Portrait of a Woman in the greater context of William Byrd II's portrait collection and his life. Questions of attribution and identity are examined by a thorough analysis of secondary and primary sources. The role of migrating English influences across the Atlantic on the style of the portrait are also shown. This original research furthers the understanding of Byrd as a cultured and influential Anglo-American of Colonial Virginia and for the first time considers Byrd II's portrait collection as a whole.

Donovan Stewart, Nursing

Fall Prevention in the Elderly

Faculty Mentor: Lauren Outland, Nursing

Statement of Problem: Falls are the leading cause of injury, hospitalization, and death among adults age 65 and older. One in three adults fall each year, leading to 20%-30% suffering moderate to severe injuries (CDC, 2013).

Method: Utilizing the Ecological Model of health as a framework, a tool was developed to identify those at risk for falling. The tool includes a checklist for participants regarding their homes and physical environment. Participants are required to attend one hour lecture regarding fall prevention strategies and provided flyers focusing on home modifications, outdoor safety, and medication safety. Fall rates are compared six months after education provided in high fall zip code initially identified.

Description of Innovation: The ecological approach is considered the key part of the new public health and of the health promotion movement. The framework provides research and intervention focused on the wide range of determinants of health as well concentrating on the interactions among individuals, groups, and their environment. Effective programs are those based on a comprehensive approach involving multiple intervention strategies (Richard et al, 2012).

Implications for Research: Further research is needed to develop fall prevention programs most effective for the elderly. Interventions are most successful when delivered by health care workers as well the way it is presented. Health care workers are in the right position to make the most significant impact.
Melanie Tang, Kristina Tanglimsamarusuk, Aja Vo, Jeffrey Wan, Occupational Therapy

Experiences of Occupational Therapists Working with Obese Clients
Faculty Mentor: Claudia Peyton, Occupational Therapy

This phenomenological qualitative research study examined the experiences of occupational therapists working with obese clients. Researchers interviewed six occupational therapists with a range of 2.5 to 36 years of experience and found that the occupational therapists faced constant obscurity when defining obesity, broaching the subject of weight, and considering client diversity. From the ambiguity they experienced surrounding obesity, the occupational therapists in this study were able to derive a sense of continuity in common challenges, treatment planning methods, and a shared sense of professional growth. The results of this study provide occupational therapists with a foundation of expectations when working with clients who are obese.

Anais Tapia, Health Science

Behaviors in Adolescents Associated with Family Relations and Diet in Relation to Aggression and Deviation
Faculty Mentor: Enrique Ortega, Health Science

Studies show that healthy eating behaviors are strongly associated with emotional and behavioral stability in adolescents. Moreover, we know that positive parenting behaviors, such as support are associated with lower behavioral and emotional problems in adolescents. This study investigated the association between eating habits, parental support and stability of the two indicators of adolescent behavior (aggression and deviation) who live in northwest Italy.

A sample of 302 Italian high school adolescents (48 % female), aged 15-19 years (mean age = 1.4 (SD = 17.4)) was studied. Participants were representative of the population of adolescents attending high school in this part of Italy. The variables were studied by linear regression to explore associations between parental support, food habits and two different dependent variables: aggression and deviation. Age, gender were used as covariates in the analysis.

The results indicated that greater parental support was associated with decreased indicators of aggression ($\_ = -0.163$, $p < 0.05$). Poor eating habits were associated with greater evidence of deviation ($\_ = -0.129$, $p < 0.001$) and higher indications of support from parents. This study indicates the potential of healthy eating habits in ($\_ = -473$, $p < 0.01$) significance. To measure the stability of adolescent behavior, further studies that demonstrate the potential interactions between parents and eating behavior in association with emotional and behavioral stability of adolescents are required.
Destinie L. Thompson, Psychology

"An Assessment of Readability, Usability, and Audience Targeting of Internet-Based Anxiety Information"

Faculty Mentor: H. Leonardo Martinez, Chemistry and Biochemistry

Background: Health literacy is a complex set of skills that allow individuals to obtain, understand and act on health information and services. In addition, health literacy is an interaction between an individual's skills and the demand that are placed upon them. On average, an increasing number of Americans are accessing the Internet for health information, however; the information provided is often written at high literacy levels, far above the skills of the average American.

Purpose: The purpose of our study is to determine the usability, readability, and audience targeting of three popular websites (National Institute of Mental Health, The Mayo Clinic, WebMD) designed to provide information about anxiety.

Methods: Data were abstracted using an adapted version of a website assessment tool to measure general usability, health literacy, and cultural literacy. In addition, The Simplified Measure of Gobbledygook (SMOG) Readability test was used to determine readability levels and criteria from the Suitability Assessment of Material (SAM + CAM) test was used to determine numeracy levels.

Results: Results from this study indicated that the average reading level for the three websites assessed was 16th grade (college level). All of the websites included little information about audience diversity in regards to ethnicity/race, age, and gender. In addition, there was limited use of numbers in the websites, when numbers were present they were most often used to provide estimates for the prevalence of anxiety in different populations.

Conclusion and Future Implications: Readability scores were consistent with previous literature which suggested the average readability level of websites were considerably higher than an eighth grade reading level. In conclusion, websites that provide health related information should not only be written at a level accessible to the average American to understand, but also provide information targeted to a diverse audience.

Brittany Thompson, (Tommy) Chun Yeung, Occupational Therapy

Exploring The Shared Experience of Telehealth Use by Occupational Therapists

Faculty Mentor: Claudia Peyton, Occupational Therapy

Over the past decade, there has been a significant increase in the utility of computer and electronic information to provide a variety of health care services. In the field of occupational therapy (OT), however, there is limited knowledge regarding the use of telehealth with clients (Gibbs & Cohen, 2011). Telehealth has been used repeatedly as a comprehensive term that refers, "to the use of electronic information and telecommunications technologies to provide health-related services at a distance," (Cason, 2012, p.132). The purpose of this phenomenological study is to describe and explore the shared experience of telehealth use by occupational therapists. Participants included 5 licensed occupational therapists who have used telehealth at least once within the past five years. Data was collected via audio-recorded semi-structured interviews lasting no more than one hour and were transcribed verbatim for analysis. Data analysis rendered several themes based on the reported experiences that establish a coherent understanding of the essence of telehealth use in the occupational therapy field. Results such as this expose the perceived implications, advantages, and disadvantages of telehealth as experienced by occupational therapists and can be utilized as a means of understanding, promoting, and establishing efficient telehealth practices within the field of occupational therapy.
Kumar Tiger, Renea Faulknor, Melissa Przyborowski, Biology

Cryopreservation of alginate sheets containing mesenchymal stromal cells for the treatment of chronic wounds

Faculty Mentor: Fawzia Gorce, LA BioMed

The prevalence of chronic wounds affects 6.5 million of the U.S. population and treatments have cost U.S. the healthcare system $25 billion annually. Furthermore the number of patients with chronic wounds is expected to increase due to an aging population and diseases that impair healing such as diabetes. In a chronic wound there is a delay in the resolution of inflammation that is preventing proper wound healing. Alginate is a polysaccharide that is an inexpensive, biodegradable, and biocompatible FDA-approved material for wound dressings. Previously, our lab developed alginate sheets with entrapped Mesenchymal Stromal Cells (MSCs), which add to the ability of alginate to absorb wound fluid by decreasing the pro-inflammatory cytokines in the wound. To further supplement the alginate bandages previously made, we aim to increase the accessibility and storage of the bandages. A series of experiments were conducted on cryopreserving alginate sheets without embedded MSCs. The concentration of a cryoprotectant was varied to evaluate which parameters would result in sheets that are stable after being cryopreserved. Furthermore, we manipulated the cooling rate when freezing the sheets. However, the most critical step was to optimize a slow thawing procedure after cryopreservation for the sheets to retain their stability. Our results show that alginate sheets retain their properties after this protocol and it would be suitable to attempt with MSCs embedded. The successful application of these alginate bandages would potentially save the healthcare industry billions of dollars, eliminate some invasive procedures, and require fewer treatments.

Kumar Tiger, Biology

Autologous Cell Sheet Engineering for Biomedical Applications

Faculty Mentor: Laura Robles, Biology

Autologous cell sheet (ACS) is a biocompatible product that has the properties to regenerate tissue organs without immune suppression medication post transplantation. ACS is harvested from a thermo-responsive culture ware (UpCell- CellSeed Inc. Japan) that preserves the cell sheet's extracellular matrix and allows the cell sheet to acts as a patch and adheres to tissue without sutures. The purpose of the experiment is to evaluate the percentage of stem cells in an ACS engineered oral mucosa epithelial cell sheet. To test this we designed an experiment where rabbit oral mucosa tissue was biopsied and epithelial cells were isolated and cultured for two weeks to engineer cell sheets. The harvested cell sheets were tissue processed, paraffin embedded, sectioned, then analyzed through immunohistochemistry studies. H&E staining was performed to show morphologically that cell sheets were multilayered containing basal cells, supra-basal cells and apical cells typical of squamous epithelial cells. DeltaNp63, a biomarker for progenitor stem cells was used to evaluate the regenerative potential of engineered cell sheets and the results showed that the basal and supra-basal cells were positive for deltaNp63. Cytokeratin 4, a biomarker for squamous differentiated epithelial cells, was used to investigate cell sheet polarity. The results showed that the apical cells on the cell sheet stained positive for CK4, reflecting their squamous epithelial properties. In conclusion, the isolated oral mucosa epithelial cells produced a multilayer epithelial cell sheet morphologically similar in structure to the corneal epithelium. This structure consisted of basal and supra basal cells positive for progenitor stem cell markers that will palliate the symptoms caused by limbal stem cell deficiency. Support by Emmaus Medical Inc. and CellSeed Inc.
Erica Tinsley, Computer Technology

Edward Snowden: Pawn in U.S.-Russia Chess Game/Prism Scheme

Faculty Mentor: Margaret Manning, Negotiation, Conflict Resolution and Peacebuilding

Edward Snowden is universally known as the whistleblower who released sensitive information to The Guardian about the National Security Agency (NSA) collection of information via a surveillance program known as Prism, stating that the Prism not only violated U.S. citizens’ right to privacy, but also eavesdropped on the presidents of Mexico, France and Brazil. When Snowden was seeking asylum in a nation without a U.S. extradition treaty several states saw his predicament as an opportunity to settle scores with the U.S. including Venezuela, Ecuador, Bolivia and Nicaragua. However, it was Russia that seized the opportunity to flex muscle on the world stage and embarrass the U.S. by allowing Snowden to camp out in Moscow airport's no-man's-land. The Russians denied the U.S. extradition request and granted Snowden a one-year temporary asylum, although Putin maintains that he is not eager for Snowden to remain. The Russian regime and the U.S. have had a rocky relationship since the Russia-Georgia War in the 1980's. Putin is repositioning Russia as a major world power after the collapse of the Soviet Union, for example, Russia is exerting influence in current negotiations with Syria and Iran At the same time as Snowden was being granted asylum Russia hypocritically passed a law to block copyright infringement and requested the Internet be regulated by a U.N. agency known as International Telecommunications Union (ITU) that would have allowed them better access to spy on its own citizens. Putin was accused of giving delegates bugged USB thumb drives and mobile phone chargers at a G-20 summit in St. Petersburg, Russia in September 2013, but has denied these allegations as an attempt to divert attention away from the NSA revelations. Russia appears to have the upper hand in these negotiations and is enjoying manipulating Snowden as their pawn.

Nidia Torres, Cinthya Pasallo, Liliana Galindo-Gonzalez, Psychology

Inferring Personal Value Through Clothing Choices

Faculty Mentor: Steven Frieze, Psychology

Currently there is little research that looks at the connection between clothing apparel and its effects on a woman's opinion of her self-worth. Research by Tiggemann and Andrew (2011), found that clothing can significantly affect a woman's well-being. Also, Rod and Lennon (2000) found that women took part in appearance-management in order to achieve the cultural ideal of beauty. The idea of appearance management is similar to impression management; both require that the individual manipulate their appearance in order to create what the individual perceives as a socially acceptable version of themselves. Western media has made it clear, that in order to be considered attractive, a woman must adopt a sexualized look (Moore, 2010). So even if other styles of clothes are available, women are still being faced with choosing between the attractive sexy clothing or less attractive alternatives. Because clothing choices have been known to affect a woman's opinion about herself, it is therefore important to understand if the choices and decisions they make regarding their clothing are dictated by factors other than pragmatism. This research will employ a 2 X 2 factorial design and will investigate the extent to which an environmental variable (work place or school) and the expected composition of that environment (males or females) will dictate the choice of clothing for female only participants. The study will also explore the rationales women offer for their choice of clothing. Participants will be presented with a poster board displaying 30 outfits. They will be prompted to choose 5 outfits. The outfit choices obtained from popular store websites (e.g.Forever21). It is hypothesized that a woman who rates high on the Trait Self-Objectification Questionnaire (Noll and Fredrickson,1998) will elect more provocative clothing as an impression management technique in order to elevate her perceived self-worth.
Sharon Trager, Monika Vartanyan, Occupational Therapy

A Theory of Obesity, from Antecedents to Outcomes: A Grounded Theory

Faculty Mentor: Claudia Peyton, Occupational Therapy

The purpose of this study is to develop a theory of how obesity develops from antecedents to outcomes. The process obese or overweight adults, male and female, between the ages of 20 and 60 years, experience that contributed to excessive weight gain is analyzed using a grounded theory qualitative approach. This approach allowed researchers to uncover actions and factors that unfold over time through the participants’ individual process. Purposeful sampling was used to recruit participants using a snowball technique. Seven individuals with a BMI of 30 or more participated in semi-structured 1-hour interviews which explored their experiences in the process of developing obesity. Results were analyzed in detail using open, axial and selective coding, and comparing different categories that were derived from the interviews. Six main categories were derived from this analysis, and a central phenomenon was identified as unhealthy relationship with food and exercise, and developing obesity. To support the phenomenon, three key concepts including tendencies, pressure and significance were developed (tendencies are actions as a result of which persons become obese; pressure causes individuals to lose control over their own actions, and significance is the identification of the problem by the individual from antecedents to outcomes). The findings of this study may contribute to our understanding of how physical, emotional, financial and environmental constructs influence individuals in gaining excessive weight. Findings may also help Occupational Therapy clinicians to develop effective strategies and treatments to provide holistic and client-centered therapies for their clients.

Cristobal Urena, Computer Science

Apps for Tots

Faculty Mentor: Mohsen Beheshti, Computer Science

Apps have only been around only a few years and have quickly become a crucial part of technology. I became interested in Apps because of their endless potential. As I use apps I find myself sometimes evaluating ways of making an app better or thinking of new ideas for apps, so for my senior project I decided to create an app and document the entire process from learning the tools to getting the app published. Throughout this paper I will describe the process of creating and publishing an iOS application in the apple mac store. I will talk about my experience learning iOS and Xcode and other tools I used them to create the app. I will also detail about the programing methodologies and design used to create the app. A part of the paper will cover any problems I encounter and how I resolve them. Finally I will describe the process of getting published with some tips I found useful.

Jose Venegas, Physics

Recent results from Super-Kamiokande on searches for baryon number violation and on neutrino oscillations, neutrino astrophysics and plans for the future of Super-Kamiokande including Hyper-K

Faculty Mentor: Kenneth Ganezer, Physics

In this talk we will describe results obtained during the last couple of years at Super-Kamiokande on searches for Baryon Number violation including nucleon decay and neutron oscillations as well as studies of neutrino oscillations including the mixing parameters and neutrino astrophysics. We will also briefly discuss future plans for Super-Kamiokande including Hyper-Kamiokande.
Enmanuel Vera, History

The Justification of Civil Disobedience

Faculty Mentor: Liam O'Mara IV, History

Throughout history we observed how civil disobedience has played in the way of life among the youth; whom in some cases have always revolted against the power abusive government or dictatorship. The youth play I believe an important role not just important role in society but also in a way of living. I believe the older one gets the more and more we are acceptant towards our fates, our outcomes in one’s life. For we lose the rage we once had in our youth and now learn to conform with what is given to us. One example would be how college students two years ago in 2011 would protest the idea of having to pay more for tuition as well as who is accepted into the university, which has now become a luck of the draw instead of focusing on grades as well as merits one has done. Should we fade into the dark and have our flames put out and accept our demise or fight? Must the citizen ever for a moment, or in the least degree, resign his conscience to the legislator? Why has every man a conscience then? I think that we should be men first, and subjects afterward. It is not desirable to cultivate a respect for the law, so much as for the right. The only obligation which I have a right to assume is to do at any time what I think right."

These words once spoken by Henry David Thoreau whom also believed the corrupt should be punished. We the youth I believe are important benefactor to making this world better, that each generation is are here to attain an ideal our parents weren't able to get. It is learning the true meaning of life; an exposed ourselves attaining our true human capacity.

Karla Verdin, Health Science

Self-esteem, perception of attractiveness, social stress and alienation influencing the use of a condom before intercourse among Italian adolescents

Faculty Mentor: Enrique Ortega, Health Science

Background: A number of studies have shown that risky sexual behaviors among adolescents have many times been associated to both social and psychological determinants. This study investigated the influence of self-esteem, sense of alienation, perceptions of attractiveness, and social stress on the ability to demand the use of a condom before intercourse. I found a study conducted by Lee (2011) who found that "adolescent females who have a more positive sexual self-concept report a lower likelihood of protecting their sexual health." Avalos (2010) states "participants with relationship problems were less likely to use a condom at last intercourse compared to participants without relationship problems." In addition, this study investigated the potential moderating role of social relationship stress on the association between self-esteem and demand for condom use.

Methods: The sample consisted of 302 Italian high school adolescents (48% female), ages 15-19 years (mean age = 17.4 (S.D. = 1.4)), living in the northwest of Italy. The participants were representative of the population of adolescents attending high school in this part of Italy. Regarding relevant structural indicators, this sample was comparable to the general Italian population. Linear regressions were used to explore the associations among our variables of interest. Age and gender were used as covariates in the analysis.

Results: Results indicated higher self esteem to be associated to greater demand for condom use (β = .195, p < 0.01), and higher social stress to have been associated with lower demand for condom use (β = -.120, p < 0.02) No moderation results were found.

Conclusions: These results show the strong influence that intrapersonal determinants and social determinants may have on protective behaviors against risky sexual behaviors. Therefore, further studies should investigate the possible interactions between these determinants to better understand how to prevent risky sexual behaviors in teens.
Arisdelzy Villanueva, Anthony Jones, Chemistry and Biochemistry

Molecular Structural Studies of NaZHPO4.12HZO Using in-Situ Thermo-Raman Spectroscopy

Faculty Mentor: Kenneth Rodriguez, Chemistry & Biochemistry

Raman spectroscopy provides valuable information about the molecular structure by identifying different functional groups and chemical bonds. This study involved the in-situ thermo-raman spectra of disodium hydrogen phosphate dodecahydrate (Na2HPO4.12H2O) at temperatures between 25-950 degrees Celsius. The goal of this work was to investigate the molecular structural changes and phase transformations of various sodium phosphate species during the heating/cooling processes. Thermo-raman spectrum of grinded then baked Na2HPO4.12H2O has been taken at varying temperatures. The heated sample at 950 degrees Celsius was cooled down and the thermo-raman spectra at varying temperatures were also collected during the cooling process (950C-32C) Utilizing thermo-raman spectroscopy by taking the first derivative of important molecular vibration at changing temperatures could be a new approach for identifying phase transitions in crystalline structures, similar to differential scanning calorimetry (DSC) that is currently used. Additionally, the X-ray diffraction results confirmed the presence of several crystalline structures at different temperature in the heating/cooling processes. The structure of the crystalline phase was observed to yield e-sodium pyrophosphate with an orthorhombic crystalline structure upon cooling.

Quang Vo, Computer Science

An Overview of NoSQL

Faculty Mentor: Mohsen Beheshti, Computer Science

The relational data model has been the dominant database type for the last several decades. Its success can be attributed to powerful, yet simple expressive languages, like SQL, which give users the ability to query multiple relations and output results which themselves are relations. This allows for advanced and multiple tiered tools for analyzing data. However, despite all its merit, the relational model is not without fault. In particular, it has a major shortcoming concerning its ability to process massive data sets. This shortcoming can be traced back to limitations of the relational data model, design decisions made by SQL architects, architectural designs on the machines that run these computations themselves and the current explosion of data being produced on a daily basis. These issues were prominent enough to lead researchers to seek new methods to model their data. The effort of these researchers has culminated in the NoSQL movement. The NoSQL movement does not describe any one technology in particular but rather any contemporary data model technology that does not fit the relational data model. This paper hopes to elucidate the motivation for the NoSQL movement and give a brief overview of some of the solutions that NoSQL databases were designed to solve.

Shakeena Weber, Carlos Narez, Alberto Aguilar Daniel Ayala, Digital Media Arts

Fighting for my Purpose

Faculty Mentor: George Vinovich, Digital Media Arts

We are shooting a music video that will motivate and inspire the viewers. We created a story line base on the powerful lyrics of the song "Fight Club," preformed by M.RIO. The story is about a young woman that is at the hospital on the edge of fighting for her life, while her husband is in the waiting room believing and hoping that she will be ok. Throughout the music video we will be switching from two scenes. One will be the scene of the husband waiting impatiently in the waiting room of the hospital. Meanwhile we will switch to the scene of the woman punching a boxing bag which is actually used as a metaphor that symbolize her fight against her struggle to stay alive. The "Fight Club" also features two other artists known as Sharp Skills and Michelle Velazquez (M.RIO's Wife). The song carries a positive concept, which can be listened by any person of any age. Not only are we creating a music video but along we are also going to create a full packet Blu-ray. The Blu-ray will contain bonus material such as Segment (a day in the life of M.RIO), Live performance and a photo gallery. We are trying to make a well-rounded project that everybody can understand and relate to.
Michelle Weiss, English

Teaching Collaboration in the Classroom Through Composition

Faculty Mentor: David Sherman, English

Beginning in early childhood education, students are taught to compete against one another throughout their academic careers. From receiving a higher grade than others in the classroom to graduating with summa cum laude students are directed to believe that education is highly competitive. However, education and composition theorists including Donna Reiss and Art Young have found assigning multimodal writing activities centered around student collaboration prove much more effective. As noted in their chapter in Multimodal Literacies, these assignments range from discussions that influence reflective projects on in class reading to working in small groups to rewrite poetry using digital media. By incorporating such writing activities that champion students to interact with one another in a more collective environment, instructors have found a range of impressive results. Students who are normally unable to begin the pre-writing process for assignments are provided with helpful peer brainstorm sessions, whereas students who may not feel challenged in a classroom are given the chance to mentor others. Overall, students across the learning curve absorb new concepts, opinions and processes, as well as develop conclusions that they may not have come to on their own. All of these factors ultimately result in students producing more thoughtful and intellectual work than they would from only traditional activities. While the idea of group projects is already considered an obvious integration into present classroom structures, the pedagogical approach of encouraging students to expand off of one another's original ideas and applaud each other's successes is groundbreaking.

Camelle Williams, Diane Hayashi, Art & Design

High Five For Fido Calendar

Faculty Mentor: Michele Bury, Art and Design

To support the critical role of dog fostering for future adoption, High 5 for Fido, our design team, has teamed up with What's Up Dog! LA founder Jessica Landesman, volunteer Jill Kershaw and photo artist Nate Lubben to completely design and publish a special edition 2014 calendar and fundraiser. What's Up Dog! LA is a volunteer-run nonpro't dog rescue whose mission is to place destitute animals from high kill shelters in loving homes. 100% of the proceeds of the calendar will go to What's Up Dog! LA to be used towards helping dogs receive proper vet care, foster care, training and placing them with Forever Families.

The design and completion of the calendar took three months. We chose the name High Five for Fido for our design team because it is upbeat, like a cheer. Then we developed our logo. The basic design played off the high five sign. All the letters are linked to reinforce the feeling of connectivity and bonding between not just people and their pets, but people to people and pets to pets.

As we designed and formatted the calendar, we coordinated two extensive photo-shoots with our photographer and volunteers from What's Up Dog! LA. After our photographer was done color editing the photos we coordinated the overall design of the publication, and placed the photographs and the stories about the dogs written by the volunteers. The calendar went through many rounds of design changes, proofreading and edits by the staff from What's Up Dog! LA. We had two events to promote the calendar including one at The Strand in Huntington Beach. So far we have sold over 100 calendars and made $1,702. As an original publication that was created from concept to publication, we used design to reinforce and celebrate the cause of dog adoption.
Anna Cathy Williams, Nursing Research and Education

Early Stage Lung Cancer and Palliative Care Intervention

Faculty Mentor: Lauren Outland, Nursing

Background: In 2013, new lung cancer diagnoses and deaths were projected to be 229,000 and 159,500 respectively (ACS Facts and Figures 2013). These individuals and their families experience numerous symptom and quality of life (QOL) concerns. Patient education is essential to support patients in coping with multiple physical symptoms, psychological concerns such as depression, social concerns such as family burden, and spiritual issues associated with often advanced disease and poor prognosis.

Purpose: With rapidly evolving diagnostics and treatment methodology, early-stage lung cancer (ESLC) patients are increasing in numbers. Although stage I-II patients are deemed “curable,” there lingers severe psychological distress, threats of recurrence, new primaries and existing or imposed comorbidities due to the treatment itself. Consequently, the outlook remains tenuous for this population. With improving survival rates, it is imperative that patients with ESLC be fully assessed, aggressively managed, and followed-up. Through a comprehensive care plan and interdisciplinary effort, healthcare professionals may be able to offer ESLC patients stellar evidence-based intervention and a greater chance of possessing a sense of normalcy in their lifestyles.

Methods: The framework for the project combines patient-centered teaching principles and concepts from NCCN Guidelines for ESLC as well as Distress Management and National Consensus Project Guidelines for Palliative Care. The project design includes two phases. Phase I provides usual care for 12 months post accrual. Phase II is the PCI phase which consists of a comprehensive evaluation review by an interdisciplinary team, four intervention sessions and four follow-up phone calls.

Conclusions: Pilot studies conducted in this lung cancer research program led to the development of a Program Project that aims to improve QOL and symptom management for lung cancer patients and caregivers. The PCI phase continues, and has shown great promise in efforts to provide palliative care early on.

Janette Wong, Health Science

The Effect of Parental Support Verses the Effect of Peer Support on Adolescent's Grades

Faculty Mentor: Enrique Ortega, Health Science

Background: Studies suggest that parental support may influence teen grades differently than peer support, and that the association between support behaviors and teen academic achievement may be different according to the gender of the child. This study investigated the potential associations between supportive behaviors from parents/peers and academic achievement among European adolescents from two countries: Italy and Holland. Methods: The sample consisted of 302 Italian high school adolescents (48% female), ages 15-19 years (mean age = 17.4 (S.D. = 1.4)), living in the northwest of Italy. The participants were representative of the population of adolescents attending high school in this part of Italy. Regarding relevant structural indicators, this sample was comparable to the general Italian population. Correlations were used to explore bivariate correlations among the following variables: parental support, peer support, and grades among Italian and Dutch male and female adolescents.

Results: Results indicated parental support and peer support were not significantly associated to male teen grades in either country. Among females however, results showed that parental support was positively associated to school performance (r=.216, p=.01) in Italians.

Conclusion: Results indicated clear gender differences on the effects of parental support on student's school performance. Such differences may have strong implications for potential family based programs aimed to encourage and allow parents to be more involved in their child's educational goals. Parents would be able to provide more support towards their child's grades and activities for both genders.
Jessica Wong, Health Science

The Effect of Strictness of Family Rules and Adolescence Academic Experience

Faculty Mentor: Enrique Ortega, Health Science

Background: Strictness of family rules have long been associated to both positive and negative academic outcomes among adolescents. Studies have indicated that children that live in families that have strict rules tend to produce better academic outcomes. This study investigated the association between strictness of family rules and four academic outcomes including performance and perceived experience at school.

Methods: The sample consisted of 100 Dutch high school adolescents (52% female), ages 15-19 years (mean age = 16.4 (S.D. = 1.6)), living in the northeast of Holland. Regarding relevant structural indicators, this sample was comparable to the general Dutch population. Correlations were used to explore bivariate correlations among the following variables: Strictness of family rules, grades, satisfaction with school experience, experiencing classes as too difficult, and experiencing classes as too easy.

Results: This study indicated that strictness of family rules was significantly associated to experiencing classes as too difficult (r= .333, p=.001) in males. Among females however, strictness of family rules was significantly associated to experiencing classes as too easy (r= .235, p=.002).

Conclusions: Results indicated that the experience of strictness of family rules may produce different academic outcomes according to the gender of the child. Further studies are needed which can allow investigators to better understand the effects of rules on adolescent behavioral outcomes.

Griselda Zermino, Psychology

Relationship Between Self-Esteem and Sexual Behaviors

Faculty Mentor: Dr. Keisha Paxton, Psychology

This study examined associations between self-esteem and its relationship to age of sexual debut and sexual risk behaviors, such as multiple sexual partners and unprotected sex. It is important to understand self-esteem as a factor in understanding sexual initiation and sexual behaviors. Society sometimes underestimates the link between these factors, which are so relevant and crucial in people's lives. In recent years, more individuals have become more open and willing to talk about their sexuality. It was hypothesized that individuals with lower self-esteem tend to have an earlier age of sexual debut and have more risky sexual behavior, such as using condoms less frequently; in addition, males with high self-esteem tend to have more sexual partners; in contrast, females with a lower self-esteem tend to have more sexual partners. The present study used an online survey to collect data. Six-hundred-eighty-six undergraduate students from a Western university completed the survey from a computer of their choice. The survey contained several measures including the Rosenberg Self-Esteem Scale, as well as questions regarding age of first intercourse, condom usage, and number of sexual partners. Findings of the study suggest that self-esteem is an important factor related to individuals' sexual behavior. However, more studies are needed to further understand this relationship.
Joshua Zuniga, Business Management

Never Fade Away

Faculty Mentor: Cal Caswell, Management

The idea stimulates from the concept to never be forgotten. There are so many things in the making of our history that is being forgotten. It is being forgotten simply because our present generation is not teaching it. The value of history is lingering within our past generations memory.

I am a firm believer that history always repeats itself. If we learn from our history then problems in our present, future can be avoided. As citizens of our nation we have the power to ensure excellent outcomes, because we can predict success through the knowledge of our history. So I came up with the idea to have people learn subconsciously through the things they love the most... clothing.

Clothes have been the epitome of man’s decisions for centuries. Clothing has been placed on a pedestal. It has been given the power to judge, falsify, and redeem people to life. There are people who make a living from judging a person’s apparel. So let’s give people something to actually judge! Let’s give people something to actually live by; let’s give them Never Fade Away!

I want to put a historical figure on a shirt. The historical figure is going to be drawn in an epic way that will attract the attention of people. On the bottom of the shirt there will be history facts about three sentences. With the shirt will come CD’s with a three-minute biography of the image. With the product raving among the streets we’ll go to other companies and figures requesting to put their logo or face on the shirt. This will then spill over to sponsoring sports teams and other venues. The ultimate goal is to have NFA all over the world promoting history.