

The Office of Student Research & The Office of Graduate Studies



3rd Annual Student Research Symposium “Meeting of the Minds”

May 27th, 2014

Santos Manuel Student Union

9:30 AM- 7:30 PM

California State University, San Bernardino

Disclaimer: All student abstracts have been written and approved by student authors before publication. Any

California State University, San Bernardino
The Office of Student Research
 &
The Office of Graduate Studies
 3rd Annual Student Research Symposium

May 27, 2014

Presented By

Dr. Jeffrey Thompson

Dr. Francisca Beer

Special Guests

Kristen Huyck, Rep. for Riverside County Supervisor Kevin Jeffries

Gary Ovitt, San Bernardino County Supervisor

Benito Barrios, San Bernardino Council Member

Ashley Jones, Rep. for Assembly-member Cheryl Brown

Sponsored By

Health Professions Advising Center

Student Success Initiative

Pearson

Special Thanks

Leslie Davidson-Boyd

Maria Domingo

Debbie Gonzalez

Geneva Marshall

Cassidi Simpson

Natasha Smith

Qiana Wallace

Danielle White

Nichele Wren

Graduate Studies

Lynda Pacheco

Chris Songsittichok

Volunteers

Yuliana Diaz

Alejandra Lopez

Aaron Boyd

Laura Romero

Cindy Pipkin

Dayadara Gonzalez

Darlene Castillo

Nidia Parra

Jesy Amaro

Godfrey Mpungu

Daisy Aguirre

Thomasine Lewis

Silvana Johnston

Flor Hernandez

Diana Iwais

Zafiro Telez

Laura Romero

Jasmine Perez

Gardenia Rodriguez

Tiffany Smith

Cassidi Simpson

Nichele Wren

Damon Mosier

Selena Lopez

Jessica Ramirez

Marlen Covarrubias

Abigail Lopez

Allen Peoples

Linda Tat

Israel Iguarate

Moderators

College of Arts & Letters

Dr. Chandler Mo Bahk, Communication Studies
Dr. Dany Doueiri, World Languages & Literatures
Dr. Oraib Mango, World Languages & Literatures
Dr. Elizabeth Martin, World Languages & Literatures
Prof. Stacey Fraser, Music
Dr. Carol Damgen, Theatre Arts

College of Business & Public Administration

Dr. Alexandru Roman, Public Administration

College of Education

Dr. Marita Mahoney, Administration

College of Natural Sciences

Dr. Kimberley Cousins, Chemistry & Biochemistry
Dr. Dorothy Chen-Maynard, Health Science & Human Ecology

College of Social & Behavioral Sciences

Dr. Donna Garcia, Psychology
Dr. Kevin Grisham, Geography & Environmental Studies

The Office of Graduate Studies

Mrs. Maria Domingo
Ms. Geneva Marshall
Ms. Shelby Reeder
Ms. Natasha Smith

Welcome Notes



It is with great pleasure that we welcome students and faculty of California State University, San Bernardino to our 3rd Annual Symposium. The purpose of the 3rd Annual Symposium is to recognize the various academic achievements of our students and our faculty mentors. Our students across the various colleges at CSUSB will have the honor of showcasing their research projects and creative activities for all to see. We are very proud of our students who are willing to share their research projects and creative activities. We would also like to acknowledge our faculty mentors who took the time and made an effort to guide and nurture their students' academic and creative impulses. In closing we hope that everyone who attended had a great time and are encouraged to participate in future symposiums.

Dr. Jeffrey Thompson

A handwritten signature in black ink that reads "Jeffrey Thompson".

*Dean of Graduate Studies
Associate Provost for Research*

Dr. Francisca Beer

A handwritten signature in black ink that reads "Francisca Beer".

*Assistant Dean of Graduate Studies
Director of the Office of Student Research
Professor of Finance*

Agenda

9:00 a.m. - 9:30 a.m.

Event Center

Registration

9:30 a.m. - 10:00 a.m.

Theatre, SMSU 107

Welcome

President Tomas Morales

Dr. Francisca Beer

Dr. Jeffrey Thompson

CSUSB Student Research Competition Recognition

10:00 a.m. - 11:00 a.m.

Theatre, SMSU 107

Presentation

Dr. Arturo Concepcion

Mobile Application Research & Development at CSUSB

Alan Perez

Nikhil Dasari

Mary Pagan

Darnell Shumpert

Dr. David Turner

Video Game Programming with SDL and Lua

Mark Swoope

11:00 a.m. - 11:30 a.m.

Theatre, SMSU 107

Performance

Sarah Navarro

College of Arts and Letters

11:30 a.m. - 12:00 p.m.

Event Center C

Meet our Alumni

Speaker

Dr. Sergio D. Iñiguez

Vicarious Defeat: A Novel Preclinical Model of Juvenile Depression

12:00 p.m. – 1:00 p.m.

Event Center C

Lunch

1:00 p.m. – 2:30 p.m.

Poster Presentations &

Art Exhibits

Event Center A & B

Student Presentations I

RM 215-218

Workshops

Making Study Abroad a Passport to Dream Job

Dr. Vipin Gupta

Room 207

1:15pm-1:45pm

2:30 p.m. – 2:45 p.m.

Event Center B

Refreshments

2:45 p.m. – 4:00 p.m.

Student Presentations II

RM 215-218

Workshops

Steps to Becoming a Graduate Student

J. Sheldon Barillaro

Room 211

2:40pm-3:40pm

Finding Internships that Pay

Christina Rodriguez

Room 207

2:40pm-3:10pm

Going to Graduate School?

Claudia Estrada

Room 208

2:40pm-3:10pm

4:10 p.m. – 5:30 p.m.

Student Presentations III

RM 215-218

5:30 p.m. – 6:00 p.m.

Event Center C

Reception

6:00 p.m. – 6:30 p.m.

Event Center C

Music Department

Cash Tijerina

College of Arts and Letters

6:30 p.m. – 7:00 p.m.

Event Center C

Poetry Reading

Dr. Juan Delgado

Poetry and Prose

*By**Master's in Fine Arts Students*

Michelle Bracken

Chance Castro

Michael Cooper

Kelly Dortch

Elisha Holt

Martiza Ocampo

Orlinda Pacheco

Heather Reyes

Ruben Rodriguez

7:00 p.m. – 7:30 p.m.

Event Center C

Meet our Alumni

Speaker

Dr. Johnathan King

*A Journey into the Brain: from Molecules to Behavior***7:30 p.m. – 8:00 p.m.**

Event Center C

Awards Ceremony

Keynote Speakers

Dr. Arturo Concepcion



Arturo I. Concepcion finished his M.S. Computer Science in 1981 at Washington State University and his Ph.D. in Computer Science in 1984 at Wayne State University. From 1985 to 1990, he has held faculty positions at Michigan State University and De La Salle University, Philippines. He was a senior software engineer at Software Brewers Inc., Philippines, where he led a team of researchers in replacing a user's manual of a product with an automated instruction & guidance system using AI in 1989. He has been a faculty member at CSUSB since 1990 and is currently a Professor of Computer Science. He served as Chair of the Department of Computer Science from 2000 – 2006. During his term, he was involved in the development of several degree programs at CSUSB: the B.A. Computer Systems, the B.S. Computer Engineering, and the B.S. Bioinformatics. He was also involved in the first ABET accreditation of the B.S. Computer Science in 2001 and the development of the M.S. Computer Science in 1994. He is involved in the selection of summer student interns at the Center for Bio-Image Informatics, U.C. Santa Barbara, since 2004. He currently leads a team of student interns at the Information Technology Services (ITS) division developing and maintaining mobile apps for use at CSUSB and external companies/entities. His research interests are in software engineering, mobile applications, the applications of expert systems in video games, and bioinformatics. He has published over 50 conference and journal papers. He holds a patent for a software process management called ReMoTe (Recursively estimating Multi-threaded observation Technology enterprise). He is a member of the Academic Computing & Media, IEEE Computer Society, the Sigma Xi, the Phi Beta Delta, and the Asian Faculty, Staff, and Student Association.

Title of Presentation: Mobile Application Research & Development at CSUSB

Abstract: Arturo Concepcion will give a brief overview of the mobile app R&D at CSUSB. This includes the four mobile apps published last year and the five mobile apps published this year. Dr. Concepcion will describe the R&D process we used using my software engineering class (CSE 455) and then continuing the process through the faculty/staff/student team. In this presentation we will describe two current mobile apps currently being developed: Red Folder and Arrow Heart. The former is a mobile app requested by the CSU Chancellor's Office while the latter is requested by the Arrowhead Credit Union, San Bernardino. These two mobile apps are two of the eleven mobile app products that were prototyped in CSE 455 this Winter 2014. Red Folder will

be presented by Alan Perez, Nikhil Dasari, and Mary Pagan. ArrowHeart will be presented by Darnell Shumpert and Mary Pagan. The R&D process was described in the paper “A Faculty/Staff/Student Team for Collaboration in Developing Mobile Applications in the Software Engineering Course,” 6th International Conference on Computer Supported Education, Apr 2014. We are also currently doing R&D on two mobile apps that can be commercialized if we are successful.

Dr. Sergio D. Iñiguez



Sergio Iñiguez, Ph.D. is an Assistant Professor of Psychology at California State University, San Bernardino. Dr. Iñiguez earned both his bachelor's and master's degrees in psychology at CSUSB before completing the Ph.D. program in neuroscience at Florida State University. He returned to CSUSB in 2011 as a faculty member where he established a behavioral neuroscience laboratory that examines, at the preclinical level, how early-life exposure to stress and psychotropic drugs influence responses to mood-related behaviors in adulthood.

Title of Presentation: Vicarious Defeat: A novel preclinical model of juvenile depression

Abstract: Exposure to stress during early development is highly correlated with the emergence of mood-related illnesses, such as general anxiety and major depressive disorder. Because the first episode of clinical depression often emerges during the juvenile stage of development, in my laboratory, we are investigating how exposure to social stressors during adolescence may provide a novel way to examine stress-induced depression at the preclinical level. Specifically, using behavioral and pharmacological approaches, I will be presenting data indicating that experiencing and/or witnessing social stressors results in a depression-like behavioral profile that is reversible by chronic, but not acute, administration of traditional antidepressant medications, such as fluoxetine (Prozac). As such, these findings indicate that vicariously experiencing social stressors may be a potential novel animal model to study the neurobiological factors that precipitate the development of adolescent mood-related disorders.

Dr. Johnathan King



Jonathan King graduated from California State University, San Bernardino in 2000 with a B.S. in Biology and a minor in Psychology. While at CSUSB, he worked in the lab of Dr. Jeffrey Thompson. He attended Cornell University and received a Ph.D. in Neurobiology and Behavior in 2007. From 2007-2009, he was an HHMI postdoctoral fellow at Pomona College. In 2009, Dr. King joined the faculty in the Department of Neuroscience at Pomona College.

His lab uses electrophysiological and behavioral techniques to investigate synaptic plasticity and learning and memory. Current projects include investigating the relationship between stress, depression and neuroplasticity in the hippocampus.

Title of Presentation: A Journey into the Brain: from Molecules to Behavior

Abstract: The talk will focus on how I got interested in Neuroscience at CSUSB and the research projects that I have been involved in throughout my career.

Dr. David Turner



In 2001, David Turner, attained a Ph.D. in Computer Science from the Eurocom Institute, Sophia Antipolis, France. His dissertation proposed and evaluated algorithms for streaming multimedia data over the Internet. At Eurocom, he was also an early pioneer in the development of the World Wide Web, including co-founder of Wimba, Inc., provider of voice-based educational tools, a company that was acquired by Blackboard in 2010. Since 2001, David Turner has served as a faculty member of the School of Computer Science & Engineering at CSUSB. In this role, he was instrumental in the creation of the Computer Systems program, a more applied version of the traditional computer science degree program. His specialty is Web application development. With co-author Jinseok Chae, he published an online book titled Jav Web Application Programming with Eclipse. He has a YouTube channel with over 1500 subscribers and 400,000 views of videos supporting the Web programming book. His current focus is on developing and teaching procedures to create scalable, secure, mobile-oriented Web applications. He also has led undergraduate student video game development projects resulting in two published video games. He continues to support undergraduate video game development projects and facilitation of students vying to enter the video game development industry.

Title of Presentation: Video Game Programming with SDL and Lua

Abstract: David Turner will give a brief overview of video game project accomplishments at CSUSB, including a space shooter called VectorForce that was published to the Xbox 360 and a role playing game called Lacuna Reaver that is a free download. He will also describe current game development projects. Computer science student Mark Swoope will present his current research on embedding the Lua scripting language in a game engine written in C with the Simple Direct Media Layer portability library. He will demonstrate a simple game that is currently under development by him and other students.

Poetry Reading

Dr. Juan Delgado



Mexican American poet Juan Delgado first started coming to the United States with his family when he was a child. He attended California State University, San Bernardino, where he studied accounting before discovering writing and majoring in English. He earned an MFA from the University of California, Irvine, where he was a Regents Fellow. Delgado's collections of poetry are; *Green Web* (1994), selected by poet Dara Weir for the Contemporary Poetry Prize at the University of Georgia; *El Campo* (1998); *A Rush of Hands* (2003); and *Vital Signs* (2013), which is about his hometown of San Bernardino. His poems have been included in the anthology *Touching the Fire: Fifteen Poets of Today's Latino Renaissance* (1998).

Delgado's work often portrays the realities of the immigrant experience, with its attendant poverty, hardships, and love. In *El Campo*, Delgado's poems about Mexican farmworkers and their families are accompanied by paintings by Simon Silva. Rosa Martha Villarreal, reviewing *A Rush of Hands* for *Tertulia*, noted the "muted images of personal sorrow and terrified wonder," adding that Delgado "takes images from the community of shadows, the undocumented immigrants, and gives substance to their being."

Delgado has been poet-in-residence at the University of Miami. He is a professor of creative writing, Chicano literature, and poetry at the California State University, San Bernardino.

<http://www.poetryfoundation.org/bio/juan-delgado>

Poetry and Prose

By

Michelle Bracken

Chance Castro

Michael Cooper

Kelly Dortch

Elisha Holt

Maritza Ocampo

Orlinda Pacheco

Heather Reyes

Ruben Rodriguez

Performances

Sarah Navarro



Sarah began her music education in the 4th grade, and has been playing the clarinet for nearly 13 years. She is currently finishing degrees in both Music Education and Clarinet Performance from California State University, San Bernardino. In fall 2014, Sarah will begin her graduate studies in Clarinet Performance at California State University, Northridge. Sarah is a freelance musician performing in operas, musicals, wind ensembles and orchestras throughout Southern California. She has also served as principle clarinetist in the CSU San Bernardino Symphonic Band and Chamber Winds, UC Riverside Chamber Orchestra and the University of Redlands Young Artist Orchestra.

Cash Tijerina



Born and raised in Riverside, California, Cash Tijerina is the first graduate of his family from California State University San Bernardino. He began in 2007 at CSUSB with the idea that he would become a business major. Inspired by his younger brother in 2009, He purchased Protools and began to record local artists out of his parents' house. With absolutely no knowledge of how to create music he changed his major to music and pursued a degree in Music Technology. Instructed and mentored by Professor Scott Vance, Cash developed a love and passion for Electronic Music.

With the knowledge gained from Scott Vance, he infused His passion for electronic music with Film. He developed new way to perform his music live with live visual graphics. This new style of performance lead to numerous collaborations in the field of live Performance. As a Video DJ, Cash has performed two operas with Marco Schindelmann at the University of Redlands, and the Cal State Music Department Productions of Trouble in Tahiti, a Tribute to Leonard Bernstien, as well as Frida and Maria De Buenos Aires in collaboration with Dr. Stacey Fraser at Cal State San Bernardino. Cash has also developed a way to perform with live musicians as seen at 2014s Latin Jazz Fest. Cash is currently developing his own Entertainment/Production Company with division's in audio Engineering and Production, Film, Photography, Artist Management and Live Entertainment.

Workshops

Making Study Abroad a Passport to Dream Job

Dr. Vipin Gupta

1:15p.m.-1:45p.m.

Room 207

Learn how to make study abroad a passport to a dream job.

Steps to Becoming a Graduate Student

J. Sheldon Barillaro

2:40p.m.-3:40p.m.

Room 211

This workshop provides information and advice on applying to graduate programs, including details on the various admission tests, personal statements, references, and appropriate application timeline.

Finding Internships that Pay

Christina Rodriguez

2:40p.m.-3:10p.m.

Room 207

Finding quality internships entails strong research and networking skills. Come learn how to search on-line, through your network and through campus resources.

Going to Grad School?

Claudia Estrada

2:40p.m.-3:10p.m.

Room 208

This workshop introduces students to the process of finding and applying to graduate school including information about personal statements and entrance interviews.

Workshop Presenters

J. Sheldon Barillaro



Sheldon Barillaro has spent the bulk of his life teaching and assisting students in their educational pursuits. He has taught in the K-12 system and has tutored at the collegiate level. Prior to joining the Kaplan team a little over a year ago, Sheldon earned a Bachelor of Arts in History from Sonoma State University and a Bachelor of Science in Applied Statistics from the University of California, Riverside. He has successfully taught students test-taking skills for the PSAT, SAT, ACT, GMAT, and GRE. His expertise is showing students how best to see connections among the various types of problems that they encounter on these standardized tests, as well as the most efficient method to solve each problem type. Sheldon's future plans include pursuing a Master of Finance degree and working as a financial analyst, while continuing to shape young minds as they prepare for college and graduate school.

Claudia Estrada

Claudia Estrada is a Career Counselor at California State University San Bernardino's (CSUSB) Career Center. Claudia is a CSUSB Alumna having completed her Bachelors in Criminal Justice and her Masters in Career and Technical Education and is currently pursuing a Doctorate in Educational Leadership. She is a first generation college student and believes that education is one of the keys to success. Her background includes student recruitment and she has worked at CSUSB since 2001. In 2009-2010 she was the President for the Association of Latino Faculty Staff and Students (ALFSS) who has awarded over \$130,000 in scholarships to CSUSB students of all ethnic backgrounds. The Association is also in charge of the "Latino Graduation" every June. She is currently the Staff Advisor for Lambda Theta Nu Sorority Inc., LULAC CSUSB Chapter and an active member of Kiwanis of Greater San Bernardino.

Dr. Vipin Gupta



Dr. Vipin Gupta (Ph.D., Wharton School) is an expert in international management, strategy in a global context, and also teaches study abroad business in China, India, Middle East, and Europe courses at CBPA. He is renowned for his contributions to the science of culture, sustainable strategic management in the emerging markets, managing organizational and technological transformations, and entrepreneurial, global, and women's leadership. He has authored or edited 16 books, including the seminal GLOBE project on culture and leadership in 62 societies, eleven on family business models, two on organizational performance, one on the Multinational subsidiaries in China, and an innovative strategy textbook. He has published about one hundred fifty articles in international academic journals and as book

chapters. He has been an invited speaker and presenter at conferences and institutions in over 40 nations.

Christina Rodriguez

She brings 20 years of private sector interviewing and hiring experience to help CSUSB students with their own professional development. After 3 ½ years of working with students from all majors on their résumés, internship search, networking skills and social media profiles, she can help you become a strong candidate for consideration. She teaches students skills that can be transitioned from college to career and help them stand out in a competitive environment.

The College of Arts & Letters



Art Display

Presenter: Alan Van Fleet

Program: College of Arts and Letters, Studio and Art Design, MFA

Faculty Sponsor: Dr. Annie Buckley

Title: Spirit Indestructible, 2014

Abstract: My artwork is an expression of my modern mythology through the consumption of sacred histories and junk subculture. Though the nature of myth is founded in factual untruths, it speaks of truths about our relationships to society, culture, each other, the surrounding universe, and ourselves.

The shrine-like assemblage sculptures are inspired by anime, manga, video games as well as mythology and mysticism. I begin each project with research into a particular character or series, gods and goddesses, mythological creatures, and mystical correspondences to draw symbolic connections to the determined theme. This brings in a creditability or ‘divine lineage’, which serves as the catalyst in the consequent reactions that fuels the development of the piece.

Each assemblage juxtaposes a variety of repurposed objects to venerate my pantheon of beloved action figures. My ritual for selecting materials involves searching eBay for used actions figures, sifting through piles of junk at thrift stores and yard sales, as well as searching for flowers and lapidary rock sources online and in retail stores.

The re-contextualization of these elements of popular culture form new cultural manifestations that more accurately represent the complex system of values and beliefs at the level of the individual. It also complicates the traditional categorizations of high and low art by using a variety of materials not normally associated with fine art, specifically the use of action figures. This practice attempts to demystify the veil that separates the experiential and the transcendent.

Presenter: Sapira Cheuk

Program: College of Arts and Letters, Studio Art, MFA

Faculty Sponsor: Dr. Annie Buckley

Title: King of Hong Kong

Abstract: “Hong Konger” and “Hong Kongese” are terms recently added to the Oxford English Dictionary. Despite the fact that the 2011 Hong Kong census identified Hong Kong as 93% ethnically Chinese, to most citizens of Hong Kong, the “Hong Konger” identity singled out by the Oxford English Dictionary supersedes the ethnicity shared with Mainland China's Chinese. Similar to the Taiwanese people’s distinction from Mainland Chinese, the desire to reject Mainland China's civically repressive rule and culture has never been more prevalent in Hong Kong than today. The “One Country, Two Systems” policy was established to ease Hong Kong’s transition from British to Chinese rule in 1997; it has instead progressed into “One Country, One System” rule that limits and suppresses civic freedom

for Hong Kong's residents as it slowly drags the island back into Mainland China's ideology of governance. At the same time, Tsang Tsou Choi, a mentally ill man notorious in Hong Kong for his graffiti, in which he claimed to be the ancestral King of Kowloon (a region of Hong Kong), saw his scrawlings progress in popular view from public nuisance to a symbol of an independent Hong Kong. The popularity of Tsang's work and the addition of "Hong Konger" and "Hong Kongese" to the Oxford English Dictionary are no separate occurrences; they both happened as expressions of a culture struggling for liberty, independence, and even survival. My piece, which appropriates Tsang's iconic graffiti and repetition of words, calls attention to this struggle for independent identity.

Presenter: Sarah Navarro

Program: College of Arts and Letters, Music, BA

Faculty Sponsor: Dr. Erik Jester

Title: Untitled

Abstract: Attending The Midwest Clinic allowed me the opportunity to complete and supplement the ongoing research for my undergraduate senior project, focused on performance technique, teaching philosophy and the programming of instrumental repertoire. During my stay I attended lectures, performances and demonstrations by the most highly regarded musicians and educators in the country. The lectures provided me with the chance to speak with professionals about their personal experiences and teaching philosophies, which is significant to any future music educator. Lecturers included: John P. Lynch (Univ. Of Georgia), Otis Murphy (Indiana Univ.), Eugene Corporon (Univ. of North Texas), John Madden (Michigan State), Lawrence Stoffel (CSU Northridge), and H. Robert Reynolds (USC). My programmatic research was complemented by the performances of a variety of top instrumental ensembles which showcase the newest ideas and performances, they include: Michigan State University Wind Ensemble, the Brooklyn Wind Symphony and several high school and middle school wind ensembles and orchestras. This research is pertinent to musicians and educators of all ages; through my administrative role in the CMS and leadership positions in performing instrumental ensembles my peers have also benefitted from my experiences.

Presenter: Andrew Thompson

Program: College of Arts and Letters, Visual Arts, MFA

Faculty Sponsor: Dr. Thomas McGovern

Title: Untitled # 79, 2014. Heat Transfer print on Canvas, Thread and Embroidery Floss

Abstract: In the Family Guy episode "Peter's Got Woods", the characters Peter and Brian Griffin famously snared guest star James Woods under a wooden box using a trail of candy as a distraction. Woods excitedly proclaims, "Ooh! Piece of candy!" with each step he takes closer to the trap. The scene is a nonsensical sight gag that pokes fun at illogic thought. I suggest that the joke may also be used to as a metaphor for finding your passion and discovering what makes you so excited that you lose yourself.

The Decisive Moment is a term coined by French photographer Henri Cartier-Bresson to describe the brief instant when the significance of an event, as well as the precise organization of forms (in the camera's viewfinder) gives that event its proper expression. For example, it is the moment after a person leaps to clear a puddle and before that person lands on the other side. It is the decisive moment that a photographer clicks the shutter and captures the subject suspended in mid-air.

When speaking with younger photographers about their work I ask them, "What makes you excited", "What do you see through your lens that is so memorizing it distracts you from the rest of the world", "What makes you so excited that you lose yourself?" This is what I call the *Decisive Distraction*. It is the blind passion that propels us forward. Discovering what passionately distracts you is the first steps in knowing why you take the pictures you do.

Poster and Oral Presentations

Presenter: David Briggs

Program: College of Arts and Letters, Arabic and Social Sciences, BA

Faculty Sponsor: Dr. Oraib Mango

Title: GPS Foreign Language Scavenger Hunt

Abstract: The Foreign Language Scavenger Hunt is an effort to bring language training outside of the classroom. The exercise adds to student interest by incorporating teamwork, competition, and real life interaction with members of the student body and on-campus locations. The exercise also aides in retention by providing a memorable and enjoyable event. The exercise utilizes Global Positioning System (GPS) devices to guide California State University, San Bernardino Arabic students to 23 locations I selected around campus. Grant money was used to purchase six Garmin eTrex 10 G.P.S. devices which I then programmed with the 23 locations. At each location students are faced with real world activities and questions which have been specifically designed to meet student needs and student learning objectives. Supporting curriculum is introduced prior to the exercise, training material includes material for level 100, 200, and 300 Arabic students, with vocabulary sets ranging from colors and sports through conditional situations and abstract descriptions. Courses designed include one, two, and three hour modules. Student and Professor feedback for this exercise has been universally positive, both concerning their specific experiences with the exercise and the idea of expanding into longer modules.

Poster Presentations

Presenters: Francesca Astiazaran, Ashley Hamilton, Nathan Jones, Cheré Smith

Program: College of Arts and Letters, English Composition, MA

Faculty Sponsor: Maggie Cecil

Title: From Product to Process #HiringProcesses #instaJournal

Abstract: In applying Wenger's concept of community of practice to writing centers, Grimm pushes for the work of writing centers to *not* be that of "inducting individual students into a discourse community" but rather that of "recruit[ing] new members [and] welcom[ing] the creativity of those with multimemberships" (91). Perhaps as a means to this end, the work and titles of Laura Greenfield and Vershawn Ashanti Young seek to dispel the "'Standard English' Fairy Tale" while questioning, "Should Writers Use They Own English?" What better way to open writing centers to "new perspectives, new frames" (Geller 54) than by rethinking and retheorizing the hiring processes that bring people to work at our centers? How can we confront the racism Villanueva has challenged us to eradicate, not only in the goals of our hiring, but in the process itself? In order to challenge existing models in favor of more reflective, transparent, and collaborative hiring processes, the presenters conducted research that engaged participants in discussion and prompted spontaneous writing in order to explore where we are and how we can move forward by asking: **What are our hiring processes? What principles and theoretical concerns should shape these processes? What obstacles prevent us from fully realizing our theory in practice?**

Oral Presentations

Presenter: Brett Diaz

Program: College of Arts and Letters, Applied Linguistics, MA

Faculty Sponsor: Dr. Caroline Vickers

Title: Vowel Length Shifts Between Speech Stances

Abstract: The paper looks at the relationships between stance and vowel length. It is hypothesized that in narrative stance, vowel length will be longer in duration than when in conversational stance. Data is drawn from the University of California, Santa Barbara linguistic corpus, with conversations focused on individuals in and around Southern California. Sections of data chosen focused on two parts of dialogic exchange: typical conversation stance and narrative stance. The paper builds on work by James Purvis (1980) and others regarding the nature of cognitive monitoring and how it affects speech patterns and William Labov (1966/2006) on modes of speech that may represent more accurate-to-life patterns. Tokens chosen for analysis are /a/, /ai/, and /e/. Three of each token in onset or first syllable position is collected for analysis from both conversational and narrative stance. Analysis of tokens then take place by (mean) averaging each token's length for each speaker in each stance, then the total vowel average time is calculated again for each speaker in each stance. Beyond intra-vowel, intra-speaker averages, inter-speaker average is calculated to assess consistency of the vowel length changes between stances. The paper finds that the length of tokens shows an average increase during narrative stance over conversational stance, especially during certain tokens. The paper concludes by motivating further research on the subject to locate the specific animating factor behind this durational shift.

Presenter: David Godoy

Program: College of Arts and Letters, English-Rhetoric and Composition, MA

Faculty Sponsor: Dr. Mary Boland

Title: "Exploring Writers Block"

Abstract: Objective:

My research question will focus on the causes of Writer's Block and how this phenomenon can be counteracted. My question is significant because Writer's Block occurs to writers throughout various fields of study. The fact that Writer's Block is so widespread renders it an important issue to explore more deeply. By culling from various sources, I hope to find greater insight on the subject matter as well as a better understanding of its roots and means for mitigating it. I aim to serve the conference's audience members through my research by providing them insight on this common phenomenon that many of them may face frequently.

Methods:

My project draws from sources that regard the issue of writer's block through the lenses of different fields of study. This includes Psychology, Kinesiology, and even Neurology as it deals with writing and creativity.

Intended Results:

I expect to glean an understanding of Writer's Block and its counterbalance(s) to be an amalgamation of varying factors.

Final Statement:

This project's implications not only contribute to the field of Composition, but also to the widespread fields of study that employ writing.

Presenter: Sarah Mercurio

Program: College of Arts and Letters, English Composition, MA

Faculty Sponsor: Dr. Holly Henry

Title: Parks in the Sky: How Urban Rejuvenation is Re-Writing Wilderness

Abstract: Expanding on previous analysis of “wilderness” as a rhetorical idea and cultural creation, this thesis uses the High Line Park in New York City as a case study to examine nature within cities, or “urban nature.” Using Roland Barthes’ notion of myth making, the wilderness myth is analyzed in relation to the High Line Park and investigated as a means of inflecting new myths. Next, wilderness experiences are considered by applying Jean Baudrillard’s theory of hyperreality and Sabine Hofmeister’s theory on first, second, and third wilderness to the park’s design. Redevelopment projects that have resulted in post-industrial public green space are analyzed from an ecocritical perspective, including the High Line Park and the Gas Works Park in Seattle, Washington. Analyses suggest that citizens require a hybrid urban wilderness, both natural and artificial, to adapt to the challenges of a planet undergoing climate change. This thesis concludes that while ecocritical theorists have not yet fully engaged in urban ecocritical analysis, the emerging trend to consider the city as a wild place is a direct result of a shift in cultural perspective, as is evidenced through the development of the natural and artificial place-making, such as the High Line Park. Key theorists include Roland Barthes, Jean Baudrillard, William Cronon, Raymond Williams, Sabine Hofmeister, and Timothy Morton.

Presenter: Sefferino Ramos

Program: College of Arts and Letters, English Composition, MA

Faculty Sponsor: Dr. Margaret Doane

Title: The Treatment of Mexicans in Willa Cather’s *Song of the Lark*: A Postcolonial Analysis

Abstract: The purpose of this research is to analyze how Mexicans are portrayed and treated in Willa Cather’s *Song of the Lark*. Postcolonial literary theory is used to interpret how the characters are being portrayed. The analysis shows that Cather portrays very complex Mexican characters, which is unusual for the time. She ultimately still portrays them as separate from the whites, one of the tenets of a colonial mindset. She was representing how she understood the relationship between whites and Mexicans at the time. She does both a positive reading and a stereotypical portrayal of the Mexican characters. She was ahead of her time in this respect, as well as of her time by the stereotypical portrayal. Cather is able to humanize the Mexican characters by having them speak for themselves. The references to them being treated negatively are evident in the narration of the novel. The characters are all aware of being treated unfairly, yet they cannot do anything about it. While some characters are portrayed as very complex, having good and bad qualities, others are shown as being very simple. What I found is that Cather is able to write the Mexican characters in similar ways to her protagonist in other novels, while keeping in the discrimination they have to deal with. Using a Postcolonial literary analysis complicates the positive reading of the Mexican characters in the novel.

Presenter: Heather Reyes

Program: College of Arts and Letters, Creative Writing, MA

Faculty Sponsor: Dr. Juan Delgado

Title: Seeking Open-Minded Roommate

Abstract: Craigslist was used to research the lifestyles and living arrangements of people in the Inland Empire to influence a fictional story that features a zombie as a more appealing roommate than any other response a young woman might get from posting a room wanted ad on Craigslist.

Presenter: Emily Ann Selden

Program: College of Arts & Letters, English, MA

Faculty Sponsor: Dr. Mary Boland

Title: Walt Whitman and the politics of story: How Narrative acts as a Roadmap for the Consciousness

Abstract: Walt Whitman proposed that the politics of mankind would be written by him or for him. David Kuebach uses Whitman's political mythology building, as he argues that the "rational man" (117) needs myth. He contends that myth will be created and the question becomes who will create it? The nation's authors or "political and economic groups bent upon their own self-interest" (129)? Other authors would corroborate this view as they describe literature as a type of topographic roadmap of the consciousness of not only an individual, but a community. The focus of this paper is to examine how controlled a society is by its narratives, the stories that are told on a mass scale and those of a much smaller scale. This research will explain the power of literature as a political tool and the reason that English, as a department, is such a valuable asset to the university and deserves a respected place in the system. Our narratives control everything. Albert J. Guérard from his work *Literature and Society*, sees literature taking the forefront in creating a cultural unity that defies borders. Using a myriad of examples--such as the French revolution or medieval Europe, he creates a compelling argument of the importance of literature. Utilizing these and more sources to prove how integral narrative is to the consciousness of mankind, I will further examine the implications of how the power to tell the story is the ultimate power to control—whether expanding peace or destroying it.

Presenter: Brisa Galindo, Esther Gutierrez, and Arturo E. Tejada

Program: College of Arts and Letters, English Literature, BA

College of Business and Public Administration, Marketing, BA

Faculty Sponsor: Dr. Gina Hanson

Title: The First-Year Writing Games: Unmasking and the Politics of Literacy in "The Hunger Games"

Abstract: Our presentation at the Symposium, "The Panoptic Structures in 'The Hunger Games and in Academic Discourse,'" we will address the effect institutional control has on the academic pedagogy. We will use *The Hunger Games* by Suzanne Collins to show the similarities between members of the districts in the novel and first year "remedial students" are illustrated by James Paul Gee's idea that students who were not born into discourse can never completely gain acceptance into Academia. We want to show the similarities between how first year students are being oppressed by being labeled as remedial and not fully being embraced into Academia, which will be done by comparing their oppression the certain characters in districts face in *The Hunger Games*. The purpose of my research is to cause members within Academia to rethink their beliefs as it pertains to labeling students. I want them to view and treat each student as a normal college student.

Presenter: Andrew Thompson

Program: College of Arts and Letters, Visual Arts, MFA

Faculty Sponsor: Dr. Sant Khalsa

Title: What's Your Piece of Candy?

Abstract: In the Family Guy episode "Peter's Got Woods", the characters Peter and Brian Griffin famously snared guest star James Woods under a wooden box using a trail of candy as a distraction. Woods excitedly proclaims, "Ooh! Piece of candy!" with each step he takes closer to the trap. The scene is a nonsensical sight gag that pokes fun at illogic thought. I suggest that the joke may also be used to as a metaphor for finding your passion and discovering what makes you so excited that you lose yourself.

The Decisive Moment is a term coined by French photographer Henri Cartier-Bresson to describe the brief instant when the significance of an event, as well as the precise organization of forms (in the camera's viewfinder) gives that event its proper expression. For example, it is the moment after a person leaps to

clear a puddle and before that person lands on the other side. It is the decisive moment that a photographer clicks the shutter and captures the subject suspended in mid-air.

When speaking with younger photographers about their work I ask them, “What makes you excited”, “What do you see through your lens that is so memorizing it distracts you from the rest of the world”, “What makes you so excited that you lose yourself?” This is what I call the *Decisive Distraction*. It is the blind passion that propels us forward. Discovering what passionately distracts you is the first steps in knowing why you take the pictures you do.

The College of Business & Public Administration



Poster and Oral Presentations

Presenter: Valeria Regalado-Valles

Program: College of Business and Public Administration, International Business Administration, BS

Faculty Sponsor: Dr. Frank Lin and Dr. Vipin Gupta

Title: There and Back

Abstract: Germany a storied and complicated country has all the core elements in order for a student to have an unforgettable experience. Having the opportunity to expand my knowledge while studying in Fulda, at Hochschule University of Applied Sciences, motivated me to learn more about different business perspectives. Studying and visiting different industries in Germany allowed me to observe how companies administer their business. At the university the students really mentored us and provided us with resources and knowledge along with different perspectives to apply objectively in our classes. The, “Border Experience” at Point Alpha was one of the many highlights from my trip. The memorial site represents a unique testament to the power struggle between two political systems during the Cold War. To better understand how the European Parliament functions compared to our government in the U.S, we had the opportunity to role-play at the Parliamentarium Center in Brussels. The exercise’s conducted required us to negotiate within our group on how to build the future we want to see for Europe. The issues discussed consisted of water solidarity and micro-chipping. The goal was to find a compromise in order to legislate. This taught me about the differences on how each countries legislation operates. Education abroad is a phenomenal chance to push the boundaries of your comfort zone and to explore your passions. I greatly appreciate the opportunity to have been chosen to share my experience. It was a privilege to study in Germany and proudly represent Cal State San Bernardino.

Poster Presentations

Presenter: Maya Darby

Program: College of Business and Public Administration, Entrepreneurship, BA

Faculty Sponsor: Dr. Steven Morris

Title: To Be Determined...

Abstract: To Be Determined is a compilation of original poetry and artwork. My poetry is for both the resilient, and the weak... the pessimists, and the optimists... the cognizant, and the lost. I find beauty and inspiration in everyday life, and these poems were inspired by a myriad of experiences. Often times we go through trials, and feel alone. However, we are never alone, in fact we are all fighting similar battles. Although our journeys may be different, humans all want the same things. We all want happiness, we all want success and respect, and we all want unconditional love. Mix this belief, with some cadence and couplets, some passion and rhyming, and you get To Be Determined. I put much thought and heart into

Disclaimer: All student abstracts have been written and approved by the student authors before publication.

my work, I'm proud to have the opportunity to present my poetry amongst my talented peers, and I hope to inspire people with my poetry.

Presenter: Amelia Keeling

Program: College of Business and Public Administration, Entrepreneurship, BA

Faculty Sponsor: Dr. Frank Lin

Title: Unveiling the Hijab

Abstract: During the Winter Semester, I was presented with the opportunity to travel to the Middle East and explore a world different than what I had known. Anticipating the trip, I imaged what kind of realm I would find myself stumbling upon. Tainted by the perspectives of the media, I yearned for my own definition of this foreign culture. I found the Middle East to be rich in culture, foods, traditions, people and even an international hub for Business. The consistent calling of Morning Prayer reminded me that I had stepped into a world that views were unlike my own. Curious if what I was taught was actually true, I found fault in the misperceptions sold to me by politicians and television programs. Evident that physically our cultures had distinctive differences such as attire, skin color, and language; I still found reflections of myself within the Middle East. This trip taught me that everyone is equal regardless of language, color, or religion. A Muslim invited me into the temple and allowed me to absorb their culture on my own terms. This experience has changed my life and how I interact with others, as well as how I see myself in this integrating cultural World.

Presenter: Zhi Ouyang and Zhonghong Wang

Program: College of Business and Public Administration, Accounting, BA

Faculty Sponsor: Dr. Frank Lin

Title: "Doing Business in India & China"

Abstract: During Winter break, we spent a great time in China and India, learning the business models through the first hand materials. This experience was extremely wonderful, practical and unforgettable. Both China and India are now paid attention to by global economic market because of their rapid economic growth and high GDP. As developing countries, India and China run different business systems respectively. Our research will focus on the various business models for China and India.

Oral Presentations

Presenter: Christopher Dustin

Program: College of Business and Public Administration, Entrepreneurship/ Marketing, BA

Faculty Sponsor: Dr. Frank Lin

Title: A Time That Truly Changed My Life

Abstract: Last year during winter break I was able to go on what I would best describe as the absolute most fantastic study abroad program of a lifetime. The research and development that I gained prior to the trip really made it beneficial for me even more than words could even begin to describe. We started off by studying and beginning to understand the people of the United Arab Emirates and how they made their living from pearls and through oil and now even the tourism and financial industries. It was absolutely amazing to say the least, to see how these people are able to have such a beautiful religion and culture that I would not have understood otherwise. Truly was blessed to have been part of this program and see firsthand the way that they care for one another and for society as a whole. In the way that their sustainable development is going is absolutely phenomenal and the fact that they are actually surpassing a lot of the intentions of the rest of the world by becoming less dependent on things such as oil and are

really leading the way with renewable energy sources. All this can be seen by the City of Masdar which is a prime example of how we as a society can really begin to live off of our dependence of oil. And begin to use alternative things such as solar energy and renewable sources that are out there and all we just have to do is begin to use them.

The College of Education



Poster Presentations

Presenter: Mark Darby

Program: College of Education, Educational Leadership, Ed.D.

Faculty Sponsor: Dr. Jay Fiene

Title: Understanding Why International Student Applicants Choose a Public 4-year Institution

Abstract: Higher education has become an increasingly important avenue to develop and build a more academically and socially knowledgeable society. Importance has been placed on constructing institutions of higher learning that will foster a worldly viewpoint and understanding. To do that, many institutions have turned to international student programs to build bridges across continents. While colleges and universities seek to build a strong international student population, provide study abroad opportunities, and increase their faculty research and academic teaching opportunities abroad, economics has become a largely influential reason institutions are seeking ways to internationalize their campus. The combined economic growth and international component will increase higher education institutions' footings in the global market for sustainability purposes for years to come. In order to stay cutting edge and marketable within the ever-increasing development of higher education institutions, internationalization has been the term used to encompass all aspects of international programs. Internationalization has become an avenue for an institution to foster globalization. In the process, academics have learned to lean on business models and apply them to the academic realm of higher education. The push and pull model has been one of those models; and it looks at factors that push and pull international students to and from institutions of higher education to study. In taking into consideration factors that influence a student's decision-making process, forms of capital (e.g., economic, social, cultural) are also influential on those outcomes. As academic professionals it is necessary to develop strategic plans to attract international students.

Oral Presentations

Presenters: Dalia Chavez and Claudia Esqueda

Program: College of Education, Counseling and Guidance, MS

Faculty Sponsor: Dr. Connie McReynolds

Title: IVA + Assessment in Neurofeedback Treatment for ADD/ADHD & Autism

Abstract: Neurofeedback is a neuroscience based clinical application which involves training and learning self-regulation of brain activity. This presentation is to assist the viewer to understand the process of assessment and how neurofeedback works. The IVA+ is the assessment tool used to help individualize neurofeedback sessions and track progress. This is a multiple case study examining neurofeedback treatments of clients' diagnoses with ADD/ADHD and Autism. The researchers investigated the effects on behavioral functioning, learning and memory, and social and emotional functioning. Researchers found positive assessment in all areas of investigation; partial success

underscores the need for further study of neurofeedback and ADD/ADHD and Autism. Researchers also found a possible need for counseling support for families being affected by a family member with ADD/ADHD.

Presenter: Alissa Ramos

Program: College of Education, Educational Leadership, Ed.D

Faculty Sponsor: Dr. Louie Rodriguez

Title: We Know the Research, but Where's the Leadership? Stereotype Threat and Community Cultural Wealth

Abstract: This presentation was part of a larger panel that presented at the 12th Annual Alumni of Color Conference 2014 at Harvard, Graduate School of Education. The Panel was created in order to engage in critical conversation about tension between the research, knowledge, and awareness of the challenges facing low-income communities of color and the underrepresentation of critically engaged leaders committed to equity and social justice. For this presentation Alissa Ramos will present on her dissertation topic of Community Cultural Wealth and Stereotype Threat among Latino/a college students. Please note that this presentation is purely theoretical and conceptual. No data has been collected.

The College of Natural Sciences



Poster and Oral Presentations

Presenter: Jessica Joneson

Program: College of Natural Sciences, Biology, MS

Faculty Sponsor: Dr. Tomasz Owerkowicz

Title: The Caudofemoralis Longus Muscle and Musculoskeletal Plasticity in the American Alligator

Abstract: The caudofemoralis longus muscle (CFL) - a major retractor and medial thigh rotator- is well-developed in reptiles with a sprawling gait and a long tail. The CFL originates on the transverse processes and chevrons of the caudal vertebrae and inserts on the fourth trochanter of the femur. Evolutionary changes to hindlimb orientation and tail morphology among theropod dinosaurs have been ascribed to a reduced role of the CFL in terrestrial locomotion, but no experimental alteration of CFL function has been attempted. To investigate the interplay between CFL and skeleton, we used bilateral tenotomy to deactivate the CFL in juvenile (n=12) American alligators (*Alligator mississippiensis*). After eight months, experimental CFL wet mass and fiber length were significantly reduced by 23% and 13% respectively, compared to controls. Femur length, and external diameter and position of the fourth trochanter were similar between groups. Femur cross sections taken at the fourth trochanter revealed that cross sectional area, and polar movement of inertia were also similar between groups. CFL tenotomy thus elicited changes in terrestrial locomotor performance were observed following tenotomy, our results suggest that voluntary locomotor patterns in crocodylians are dictated primarily by skeletal morphology rather than muscle morphology. Further monitoring of bone growth/remodeling following tenotomy will allow us to investigate the CFL-driven phenotypic plasticity of the archosaur locomotor system and elucidate the role musculoskeletal strain in shaping the evolutionary transformation of the hindlimb/tail module in archosaurs.

Presenter: Adeba Mohammad

Program: College of Natural Sciences, Biochemistry, BA

Faculty Sponsor: Dr. Laura Newcomb

Title: The Role of Crm1 in Nuclear Export of Influenza mRNA in A549 Cells

Abstract: Influenza is a negative strand RNA virus that is segmented. The influenza replicates by transcribing viral mRNA in the nucleus, then using host pathways to splice viral mRNAs and export them out of the nucleus. Studies of retroviral mRNA nuclear export reveal viral mRNAs utilize the Crm1 and Nxf1 export pathways. Published studies of influenza mRNA nuclear export reveal no dependence on Crm1 while select mRNAs export via Nxf1. Previous experiments in the Newcomb Lab revealed a cell type difference regarding influenza NP mRNA nuclear export. In human lung adenocarcinoma epithelial cells (A549), NP mRNA nuclear export is Nxf1-mediated. However, NP mRNA nuclear export is independent of Nxf1 in human embryonic kidney cells (293T). Because of this cell type difference, the role of Crm1 in influenza mRNA nuclear export needed to be readdressed. Published data did not address the role of Crm1 in A549 cells. In this study, we specifically examined the role of Crm1 in influenza

mRNA nuclear export in A549 cells. Crm1 nuclear export was inhibited using Leptomycin B, a Crm1 inhibitor, during infection with influenza A/Udorn/307/1972(H3H2) virus. At 3.5 hours post infection, cells were collected and fractionated. RNA was isolated from the cytoplasmic fractions and subject to reverse transcription-quantitative polymerase chain reaction (RT-qPCR) to assess mRNA nuclear export by analysis of cytoplasmic mRNA. Crm1 inhibition resulted in no difference in PA, PB1, and PB2 mRNA nuclear export in A549 cells. Our results support use of an as yet undefined nuclear export pathway for influenza polymerase encoding mRNAs.

Poster Presentations

Presenter: William Buckley

Program: College of Natural Sciences, Geology, BS

Faculty Sponsor: Dr. Sally McGill

Title: Measuring the Movement of the San Andreas Fault Using GPS

Abstract: Global Positioning Systems (GPS) data were collected from various localities in the San Bernardino Mountains area to find out the slip rates of the faults in the area. Over 5,000,000 slip-rate combinations were tested for 14 faults within a transect across the Pacific-North America plate boundary passing through San Gorgonio Pass. The chi2 criterion was used to rank models in terms of goodness of fit to the observed GPS site velocities. A running average that was shifted was used to provide a low and high envelope around the observed data to define which slip rate combinations fit the data acceptably. The acceptable slip rates of the San Andreas fault range from 8-24 mm/yr, and of the San Jacinto fault range from 0-16 mm/yr. The best fitting model has a slip rate of the San Andreas fault of 14 mm/yr with the San Jacinto fault having a slip rate of 8 mm/yr.

Presenter: James Burns

Program: College of Natural Sciences, Geology, BS

Faculty Sponsor: Dr. Joan Fryxell

Title: Effects of Remediation and Time on Compacted Coastal Sage Scrub Soil

Abstract: This Study is an examination of the effect different types of remediation and time have had on an area of coastal sage scrub damaged by having 10-15 feet of construction spoils overburden from a nearby construction project. This study utilized a specialized soil compaction tool to hammer a rebar spike into the ground to test the degree of compaction of the soil. It was found that the soil had undergone non-linear hardening since 2010. This hardening is attributed to the formation of a surficial caliche layer.

Presenter: Barry Chew

Program: College of Natural Sciences, Geology & Environmental Geology, BS

Faculty Sponsor: Dr. Joan Fryxell

Title: Groundwater Flow and Distribution of Subsurface Materials in the Immediate Vicinity of Clear Lake, Wisconsin

Abstract: Clear Lake and three kettle lakes in the glaciated terrain of Rock County, in southern Wisconsin experienced long-term flooding after record precipitation that occurred between 2006 and 2008. water levels of the lake continued to rise in 2009, long after the heavy precipitation ceased. A project was undertaken by the Keck Geology Consortium to determine why this is occurring at this location but not at other nearby locations. That groundwater is the controlling factor in this sustained flooding is a hypothesis proposed by the project's founder, Dr. Susan Swanson of Beloit College.

Research was conducted by the Keck group at Clear Lake, in July of 2012, which included geochemical and biological analyses to help determine paleoclimate as it relates to current lake flooding. Data were gathered to determine a hydrological budget of Clear Lake. Hydrogeologic data were gathered by drilling and monitoring wells, and from data collected from private wells in the area. Three-dimensional hydrologic models are being produced in order to gain a better understanding of the behavior of groundwater in the area. All subprojects are still ongoing at this time (December 2012). Results of hydrogeologic research conducted thus far indicate that Swanson's hypothesis appears correct. Groundwater is coming into the area from three directions and is flowing out to the north. It is proposed that clay layers are the primary factor causing groundwater retention.

Presenter: Jason Cook

Program: College of Natural Sciences, Geology, BS

Faculty Sponsor: Dr. Sally McGill

Title: Using GPS Crustal Deformation Data to infer the Slip Rates on the San Andreas Fault and San Jacinto Fault in the San Bernardino Area.

Abstract: GPS data monitoring motions of benchmarks at the surface of the Earth, combined with a geophysical model of elastic motion in the upper section of the crust in response to buried dislocations on faults, were used to determine the slip rate at depth of the San Andreas, San Jacinto and other faults within a transect across the Pacific-North America plate boundary passing through the San Bernardino Mountains. The slip rate for the San Andreas fault was determined to be 6-16 mm/yr, with a best-fitting rate of 6 mm/yr. The slip rate of the San Jacinto fault was found to be 4-14 mm/yr, with a best-fitting rate of 14 mm/yr. The Eastern California Shear Zone slip rate range was determined to be 14-17 mm/yr, with a best-fitting rate of 15 mm/yr.

Presenter: Margarita Cuadras

Program: College of Natural Sciences, Biochemistry, BS

Faculty Sponsor: Dr. Kimberley Cousins

Title: NICS-Scan Method Analysis for Cyclic Oxocarbons

Abstract: Research on croconic acid has shown that the single crystal form has ferroelectric properties. The aromatic character of the molecule was being analyzed to determine whether aromaticity was a contributing factor to the ferroelectric behavior. Three other oxocarbon analogs, as well as their mono- and dianions, were also studied to determine if they had aromatic properties as well. This project used the nucleus independent chemical shifts (NICS) scan method to evaluate the aromaticity of the four cyclic oxocarbon compounds: deltic, squaric, croconic, and rhodizonic acid. The aim was to provide a more accurate analysis by placing ghost atoms 0.1 Å apart to a height of 3.0 Å. Non-conjugated analogues of each of the conjugated molecules were also analyzed for comparison. The molecules had their geometries optimized using Spartan 10 using the density functional method B3LYP/6-311+G**. The NICS scan calculations were performed using GAMESS. Graphs of the results showed that minima did not all occur at the height of 1 Å, the height at which the previous values were reported; for example, the neutral deltic molecule had a minimum of -27.8567 at a height of 0.2 Å. The differences between the minima for the conjugated and non-conjugated molecules were then graphed to remove ring size effects from the observed shielding. There were new minima determined for the smaller, three-membered rings, with a difference of 15.1836 between the NICS scan determined minimum value and the difference value. This indicates that previous conclusions overestimated the aromaticity of the deltic systems.

Presenter: Joyce Goode

Program: College of Natural Sciences, Environmental Geology, BS

Faculty Sponsor: Dr. Joan Fryxell

Title: Geologic Deformation of the Eastern Flank of the Horse and Northern Grant Ranges, NV

Abstract: Previous theories regarding deformation patterns in the Horse and northern Grant Ranges proposed minimal deformation before Cenozoic time. New data provided evidence that constructional deformation occurred during Cretaceous time and the data also provided insight into a more structurally complex pattern of folded and tilted rocks prior to extensional events. Analysis of a cross section and reconstruction to remove extensional deformation events showed a major thrust fault folded the Paleozoic and Cenozoic formations in the hanging wall and folded the Paleozoic formations in the footwall. Geometries of the reconstruction indicated that further examination to the south and east may tie this event into the Sevier orogeny. Reconstructions of the event also provided evidence that a major normal fault with a minimal plausible slip of 22,516 feet (6.9 kilometers) fractured through the thrust fault during Cenozoic time and overturned the units in the hanging wall of this thrust fault.

Presenter: Chelsea Sheets-Harris

Program: College of Natural Sciences, Geology, BS

Faculty Sponsor: Dr. Erik Melchiorre

Title: Laser Ablation ICP-MS Trace Element Fingerprinting of Placer Gold from Rich Hill, AZ: Geochemical Identification of at Least Three Generations of Distinct Placers.

Abstract: Placer gold at Rich Hill, Arizona contains trace element distributions which provide a geochemical “fingerprint” that suggests the possible lode origins for the placer gold. There are three main placer units at Rich Hill: The lower-most “black placers,” the middle “white placers,” and the uppermost “red placers.” In addition, there are remnants of a special fourth unit, called the “potato patch,” which is much smaller in volume. The most prominent geochemical feature of the placer gold from the three main units is that it all exhibits leaching of silver, and enrichment of copper in the outermost rims, suggesting long transport or long exposure at the surface. Trends of geochemistry within the cores of individual placer gold grains show changing trace element chemistry over time. These trends suggest placer formation from the downward erosion of a single hydrothermal vein source with typical chemical zonation. The potato patch gold typically has its own unique geochemistry, suggesting origins from a separate lode source, or a more complex weathering history.

Presenter: April Lane

Program: College of Natural Sciences, Public Health, MPH

Faculty Sponsor: Dr. Marsha Greer

Title: Increasing Long Term Weight Loss Success: An Individualized Holistic, Self-Care Model

Abstract: Despite the many weight loss options available, the majority of overweight and obese individuals who try to lose or maintain weight loss are unsuccessful. This lack of success has been the focus of extensive research. In an attempt to develop more effective modalities, researchers have identified several predictors of weight loss success. However, the efficacy of diets is still limited.

For many, this lack of weight loss success may be due to issues such as depression, loneliness, anxiety, lack of support, or other environmental factors that may be imperceptibly related to food and exercise. Repeated dieting failures may produce feelings of deprivation, low self-esteem, reduced self-efficacy, and dietary rebellion. For these individuals, a more holistic approach to addressing weight-related issues may be more effective and is the impetus for the development of this project.

This project was developed utilizing several previously identified predictors of weight loss success, holistic and weight loss models, along with several self-help lay publications. This resulted in the development of a unique, holistic, self-care guide that is easily individualized and based on personal weight management needs. Individuals can potentially identify their unique physical, emotional, and spiritual motives for overeating or lack of physical activity, and design their own plan of action; potentially providing themselves with a new level of health and happiness not previously realized.

Presenter: Jeonghyo Lee

Program: College of Natural Sciences, Biochemistry, BS

Faculty Sponsor: Dr. Kimberley Cousins

Title: Docking Protein Receptor TRPM8 and Ligand Methanol through AutoDock Viva and Visualization through Visual Molecular Dynamics (VMD).

Abstract: Binding affinity of menthol ligand to the Transient Receptor Potential Melastatin 8 (TRPM8) protein was examined using the computer programs AutoDock Vina and Visual Molecular Dynamics (VMD). A single run with AutoDock Vina predicts 9 possible binding modes of menthol in TRPM8. Among these 9 possible docking products, the mode with the highest affinity between menthol and TRPM8 showed interaction of menthol with residues Tyr754, Asn799, and ASP 802, which have been shown experimentally by others to be important for menthol activity. Since AutoDock Vina does not provide good visualization for bound products of menthol in TRPM8, the structure was analyzed by VMD. By using VMD, we confirmed that these Tyr754, Asn799, and ASP 802 residues are close to each other in TRPM8 receptor, and VMD provided the information to calculate the volume of the best binding pocket for menthol in TRPM8, which was 325.5 Å³. Since AutoDock Vina use a non-deterministic algorithm, it may predict different binding modes each time it is run; therefore multiple repetitions are planned to make sure the lowest energy binding mode has indeed been located. Ultimately, the analysis of conformation of eight different menthol stereoisomers in TRPM8 receptor is the goal of this research.

Presenter: Elizabeth Martinez and Katie Morrow

Program: College of Natural Sciences, Chemistry and Biochemistry, BA, BS

Faculty Sponsor: Dr. Douglas Smith

Title: The Preparation of Croconic and Rhodizonic Acid

Abstract: Ferroelectric molecules are electro-active materials that can store and switch their polarities. It has been determined that croconic acid, in its crystallized form, is ferroelectric. Croconic acid is a dihydroxy triketone having a five-carbon ring. It is hypothesized that the similar six-carbon ring, rhodizonic acid, may also be ferroelectric. The purpose of our research is to synthesize and crystallize croconic acid to confirm its ferroelectric properties, and then synthesize and crystallize rhodizonic acid to determine if it has ferroelectric properties as well. Croconic acid is prepared through a multi-step synthesis: Glyoxal is used to prepare the disodium salt of tetrahydroxy-p-benzoquinone; the disodium salt is then converted into barium croconate which is then converted to croconic acid. Rhodizonic acid, whose structure is similar to that of croconic acid, is synthesized starting from the disodium salt of tetrahydroxy-p-benzoquinone, by a series of oxidation reactions. If rhodizonic acid is determined to be ferroelectric, then rhodizonic acid and croconic acid may prove to have some interesting commercial applications.

Presenter: Julius Omoefe

Program: College of Natural Sciences, Geology, BA

Faculty Sponsor: Dr. Brit Leatham

Title: The *Turritella Inezana* from the Vanqueros Formation in the Cajon Pass, California

Abstract: *Turritella inezana* Conrad (1857) is a tall, high-spiraled gastropod common in Miocene marine rocks of California and the focus of this study. Specimens of *Turritella inezana* have been identified from exposures of the Vaqueros Formation in the Cajon Pass (Woodring, 1942). The purpose of this project is to compare (i.e. measure and evaluate characteristics of the shell) specimens from Cajon Pass with subspecies of *Turritella inezana* from other localities of the Vaqueros formation in southern California. Specimens of *Turritella inezana* from Cajon Pass have not been compared with any specimen or subspecies including *Turritella inezana santana* Loel and Corey(1932), *Turritella inezana sespensis* Loel and Corey(1932) and *Turritella inezana sespensis* Loel and Corey(1932).

Presenter: Tricia Read

Program: College of Natural Sciences, Geology, BA

Faculty Sponsor: Dr. Erik Melchiorre

Title: Morphological and Minor Element Fingerprinting for Source Identification of Placer Gold from the Vulture Mine Area

Abstract: The Vulture Mine, with over 340,000 ounces of reported gold production, is a historically important mine in Arizona. Four samples of placer gold from the area around the mine were examined in regards to geochemistry and morphology. The geochemistry of the four samples showed a direct correlation between increasing placer gold purity and increasing distance between the inferred lode source and the sample locations; conversely, silver purity decreased with distance. This is consistent with the hypothesis that lode gold shed into a placer will increase in gold purity as it travels further from its source, as silver in the alloy is preferentially weathered away. An in-depth look at the morphology of the placer grains revealed that samples found closer to the lode source had increasingly more grains which displayed sub-rounded and rounded shapes. This information supports the hypothesis that this placer gold came from the same gold lode source, and became more rounded as it traveled further from the source. This study suggests that placer gold chemistry and morphology may be a useful prospecting tool for tracing placer gold in specific streams back to the lode source. This could have large economic implications for the area surrounding the Vulture Mine, as future similar work may identify additional lode sources.

Presenter: Cierra Strojia

Program: College of Natural Sciences, Chemistry, BA

Faculty Sponsor: Dr. Douglas Smith

Title: Effects of Impacts on the Crystalline Structure and IR Spectra of Minerals Found in Comets and Asteroids.

Abstract: Understanding asteroid and comets is important because their surfaces contain evidence of dynamical evolution of the solar system. The surfaces of these small bodies have undergone many collisions in their lives, leading to shock effects that might be observable in the mineral on their surfaces. Considering this, high velocity experimental impacts into minerals typically found in comets and asteroids were conducted to observe how shocks might affect the crystalline structure of the minerals and determine if these changes could be observed in the minerals infrared (IR) spectra. A Fourier Transform Infrared Spectrometer (FTIR) was used to determine if these changes could be observed in the infrared (IR) spectra of the minerals. The minerals investigated included: diopside, magnesite, fayalite, enstatite, and peridot due to their known presence on these small bodies. Impacts were conducted at NASA's Johnson Space Center Experimental Impact Laboratory using high velocity vertical gun, varying impact velocities, temperatures and porosities of individual mineral samples. The impacted minerals were then collected, washed, dried and analyzed with the FTIR. These spectra were then compared to spectra of minerals that were not impacted and therefore showed no evidence of shock. This comparison demonstrated that the distinct peaks observed in the spectra were altered in samples that were shocked in the impact experiments. This will allow the use of IR spectra obtained from observations of these small bodies to be compared to laboratory spectra in order to investigate impact history and composition of these objects.

Presenter: Malcolm Thomas

Program: College of Natural Sciences, Geology, MS

Faculty Sponsor: Dr. Joan Fryxell

Title: Refraction Microtremor Analysis of Areas Surrounding California State University San Bernardino

Abstract: The San Andreas Fault stretches for over 800 miles through the state of California with varying regions of activity and rupture. Running along the foothills of the San Bernardino Mountains, areas in close proximity to the San Andreas Fault Zone may be subject to site amplification of ground motion caused by seismic activity via wave propagation through the subsurface. Low shear velocity of the subsurface and subsequent seismic activity have been known to present significant geological hazards, which have begun to be addressed via the Alquist-Priolo Earthquake Faulting Zone Act and the National Earthquake Hazards Reduction Program (NEHRP). This study focuses on refraction microtremor analysis (ReMi) of the top 30 meters (V_{s30}) of the subsurface in Northern San Bernardino; more specifically, areas encompassing California State University, in close proximity to the San Andreas Fault. ReMi profiles were situated 0.3 to 1.5 miles away from the San Andreas Fault, and in some instances, strategically positioned next to housing developments and structures. Phase velocity dispersion curves were generated by processing ReMi seismic data and subsequently inverted for shear wave velocity profiles. The geologic units in the study area consist of young alluvium and wash deposits, as well as older alluvial fan deposits. The goal of this study is to construct a Site Classification map based upon NEHRP site class ranking to show various average velocity profiles across a given area, and allow for the identification of possible high amplification zones.

Oral Presentations

Presenter: Alberto Acevedo

Program: College of Natural Sciences, Physics/Math, BS

Faculty Sponsor: Dr. Min-Lin Lo

Title: Time Evolution in Quantum Dynamics and Lie Algebras

Abstract: In Quantum mechanics solving for the time evolution of a system is a very difficult problem. We use a Lie algebra method to solve the problem rather than typical perturbation methods. We will take a look at this Lie algebra method, the contrast between Quantum and Classical dynamics, and dissipation.

Presenter: Negin Baghdadchi

Program: College of Natural Sciences, Biology, MSC

Faculty Sponsor: Dr. Nicole Bournias-Vardiabasis

Title: Cytokine Central of Glioma Adhesion and Invasion

Abstract: Glioblastoma multiforme (GBM) is the most lethal primary central nervous system tumor, with median survival after diagnosis of less than 12 months because dissemination into the brain parenchyma limits the long-term effectiveness of surgical resection, and because GBM cells are resistant to radiation and chemotherapy. This sad dismal prognosis for patients with GBM emphasizes the need for greater understand of the fundamental biology of the disease.

Invasion is one of the major causes of treatment failure and death from glioma, because disseminated tumor cells provide the seeds for tumor recurrence. Inflammation is increasingly recognized as an important component of invasion. In the brain, it can occur by activation of microglia, the resident macrophages of the brain, or by tumor-associated blood macrophages. Therefore, we hypothesize that activity of the innate immune system in the brain can influence tumor progression by secreting cytokines such as Tumor Necrosis Factor alpha ($TNF-\alpha$). In this study, we show that patient-derived glioma spheres undergo morphological and gene expression changes in response to $TNF \alpha$ that are associated with changes in migration behavior in vitro. The extent to which these are recapitulated in vivo will be investigated.

Presenter: Rick Campos

Program: College of Natural Sciences, Biology, MS

Faculty Sponsor: Dr. Paul Orwin

Title: Determination of Proteins Involved in Biofilm Matrix Structure in *Variovorax Paradoxus* EPS

Abstract: *Variovorax paradoxus* EPS is an aerobic, gram-negative ϵ -proteobacterium that is found in the soils as well as colonizing the human body. There is little research that has been performed on *V. paradoxus* regarding biofilms but it is known to include extracellular DNA (eDNA) in the biofilm matrix, along with exopolysaccharides (EPS) and proteins. Through molecular and immunological techniques we will demonstrate the importance of *Varpa_407* and *Varpa_3832* gene expression in *V. paradoxus*.

Presenter: Liane Greaver

Program: College of Natural Sciences, Biology, MS

Faculty Sponsor: Dr. Anthony Metcalf

Title: Determining Species Status of *Rhinichthys osculus*, the Santa Ana Speckled Dace, Among the Watersheds of Southern California Using Nuclear DNA Introns

Abstract: *Rhinichthys osculus*, the Speckled Dace, is the most widely distributed freshwater fish in the Western United States. It inhabits small flowing streams and springs. While at one time this species was found in countless numbers in many California watersheds, its populations have been greatly reduced due to environmental and ecological factors. Locally, *R. osculus*, known as the Santa Ana Speckled Dace, can be found in the Santa Ana Watershed drainages, with its nearest neighbor populations inhabiting Owens Valley and Central Coast inland waters. While mitochondrial DNA is an effective introductory look at the characterization of these varying populations, a more definitive view requires genetic information gathered from the sequencing of nuclear DNA markers. Specifically, within nuclear DNA exists sections, called introns, that do not code for expression of proteins. Due to this fact they are less subject to the effects of natural selection and therefore are highly conserved regions among species while also being highly variable between populations. By utilizing the genetic sequencing differences between populations we can show the Santa Ana Dace to be a “distinct population segment” among those throughout California.

Presenter: Alyssa Medina

Program: College of Natural Sciences, Biology, BA

Faculty Sponsor: Dr. Tomasz Owerkowicz

Title: Investigation of Phenotypic Plasticity of the Caudofemoralis Longus Muscle in the American Alligator.

Abstract: Mammalian skeletal muscle shows muscle plasticity in response to loading and unloading conditions, resulting in hypertrophy and atrophy, respectively. Reptiles, in contrast, show no apparent muscle plasticity, but little experimental research has been conducted to validate such claims. My project investigates changes to muscle fiber phenotype of the caudofemoralis longus (CFL) muscle in the American Alligator (*Alligator mississippiensis*), as introduced by surgical tenotomy. In particular, I will be looking at shifts in muscle fiber type, to see whether they parallel the behavior of mammalian muscle during unloading. This project may identify a new non-traditional animal model for prevention of muscle wasting in bedridden or dystrophic human patients, or during spaceflight.

Presenter: Stacey Nerkowski

Program: College of Natural Sciences, Biology, MS

Faculty Sponsor: Dr. Anthony Metcalf

Title: MICROSATELLITE ANALYSIS OF POPULATION STRUCTURE IN THE SANTA ANA SPECKLED DACE (*Rhinichthys osculus*): CONSERVATION AND EVOLUTION

Abstract: Geographic isolation and habitat fragmentation can cause a population to undergo independent evolutionary trajectories. Stream dwelling vertebrates such as the minnows belonging to the Cyprinidae family, one of the most genetically variable and geographically distributed groups, are excellent models for examining the genetic effects of population isolation and substructure. *Rhinichthys osculus*, a freshwater minnow, is a local species of concern that inhabits the Santa Ana and San Gabriel watershed systems within the Southern California region. 23 polymorphic microsatellite loci were characterized and identified for *Rhinichthys osculus* in conjunction with the Savannah River Ecology Lab. Currently, approximately 150 samples of *Rhinichthys osculus* are being genotyped across 7 microsatellite loci to examine various population genetic parameters including population structure and the identification of unique alleles. Preliminary analysis has begun on two of the loci, Rhos 5 and Rhos 9, in which unique alleles, genetic diversity, and population structure have been examined. The completed data across the seven microsatellite loci will assist in potential conservation management strategies.

Presenter: Dorothy Skates

Program: College of Natural Sciences, Biology, MS

Faculty Sponsor: Dr. Tomasz Owerkowicz

Title: Plasticity in Alligator Skulls

Abstract: Differences in skull width between American alligators (*Alligator mississippiensis*) raised on alligator farms versus alligators living in the wild have been noticed, with wild alligators having wider skulls. This project is aimed at determining if the mechanism which causes this difference is the death roll behavior, which is performed by wild alligators and not by the alligators on farms. To test this, we will have two experimental groups (n=40 per group) made up of yearling alligators. One group will be fed bone-in chicken pieces, clamped in a holder such that the alligators will be required to perform a death roll in order to eat. The other group will be fed chicken which is pre-chopped. Alligators will be size and clutch matched. We will also be using strain gauges to measure strain on the alligator's skulls during the different feeding behaviors. After this feeding protocol is followed for six months we hope to be able to see measurable effects of performing the death roll behavior in skull width, compared with vent-snout length and overall skull length.

The College of Social & Behavioral Sciences



Poster and Oral Presentations

Presenter: Jennifer Hagala and Brittany Rios

Program: College of Social and Behavioral Sciences, Criminology, MS

Faculty Sponsor: Dr. Gisela Bichler

Title: Responding to Embargoes: A Pulse Model of Weapons Flow

Abstract: The purpose of this study is to model the dynamic flow of illicit small arms and how that flow changes due to embargoes. Understanding the complex network of small arms trade and how that flow changes, post implementation of embargoes, due to the implementation of embargoes is essential to developing effective international gun control policy. Building on prior research, this study is the first to use longitudinal network change models (stochastic actor-oriented models) to examine the effect embargoes have on illicit small arms trade. Using gun transfer data from United Nations Com-trade (1997-2010), the structural change in trade networks was examined for three periods—pre-embargo, during embargo, and 2 years post embargo. While the global model is informative, 3 regional ego-networks highlight the unique effects of embargoes. This study shows how multinational policy promotes the formation of indirect trade routes that circumvent trade restrictions.

Poster Presentations

Presenter: Jennifer L. Aboubi

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Secrets in Romantic Relationships: An Examination of Demographic Differences

Abstract: Secrecy within the context of a romantic relationship refers to the intentional withholding of information from a partner. Previous research indicates that partners prefer not to discuss information that falls into one of three categories: Taboo topics, conventional secrets, and rule violations. The most commonly kept secrets fall into the taboo category and tend to be sexual in nature. Research indicates that secrecy within romantic relationships is associated with lower relationship quality. The purpose of the present study was to examine demographic differences with respect to secrecy in romantic relationships. Regarding gender, we predicted that women would be more likely than men to keep secrets from a partner because women are less reliant on their partners for self-disclosure and intimacy (i.e., women confide in other members of their social networks such as family and friends). We also predicted that younger individuals would be more likely than older participants to perceive secrets as detrimental to a partnership. This prediction is based on younger people's greater use of social media, including their tendency to publically present information that is often kept private by older individuals (e.g., photos of their daily interactions). We collected data from 416 ethnically diverse participants who were recruited through websites (e.g., Craigslist.org), social media sites (e.g., Facebook), and university participant

pools. We conclude by discussing the importance of our findings with respect to clinical settings, including demographic-based interventions.

Presenter: Nina Acosta

Program: College of Social and Behavioral Sciences, Experimental Psychology, MA

Faculty Sponsor: Dr. Donna Garcia

Title: The Likelihood of Publically Labeling Discrimination: The Role of Perceived Common Fate

Abstract: We found that perceived “common fate” (mutually-experienced discrimination) influenced women’s labeling of discriminatory treatment in front of another women. Women who received sexist test feedback attributed their experience more to discrimination than to ability in front of another women (rather than privately) who had the same “sexist” (versus different) evaluator.

Presenter: Lauren Albrecht

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Janet Kottke

Title: Relationships between On-Campus Employment and Academic Performance

Abstract: The worth of a college degree has become arguably essential in today’s competitive job market. Education is often the key to accessing higher paying jobs and opportunities. Many students who choose higher education work while pursuing their degree due to the rising costs of school related expenses. Approximately 80% of students in U.S. colleges are employed while attending school (YouGov, 2013). It is unclear whether employment enhances or diminishes student performance and outcomes. It would seem the more hours students spend working, the less time they have to study, however, there may be an optimum work-school balance, contributing to the academic success of working students. This study seeks to determine the relationship between student employment and academic performance at a regional university in the southwestern United States. Archival data was used to determine whether or not students employed on campus have greater academic performance (GPA, units completed, and percentage of units attempted/completed per academic year) than those who are not employed on campus. Results indicated that students who work on-campus had higher GPAs and greater numbers of units completed, as well as a higher percentage of units attempted/completed per academic year than those who did not work on campus.

Presenter: Hope Alvizar

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Jason Reimer

Title: Personality and Burnout

Abstract: The present study investigates the relationship between personality and academic burnout, specifically, the investigation of predictive effects of personality on the experience of academic burnout. A sample of convenience, psychology student participants (N=120), from California State University, San Bernardino, took part in a three part questionnaire distributed via the SONA survey systems. The first part questionnaire consisted of demographic inquiry, the second part consisted of the Goldberg’s IPIP Big-Five Factor Markers survey which measured for personality and, finally, the third part of the questionnaire consisted of the Maslach Burnout Inventory-Student (MBI-SS) which measured for learning burnout. It was hypothesized that neuroticism would be positively correlated with burnout, whereas, conscientiousness, agreeableness, and extraversion would be negatively correlated with burnout. Overall, the study hoped to bring clarity and understanding to the correlation between personality and learning burnout and remains optimistic in its contributions to similar future research and its application in academic settings.

Presenter: Olga Amador

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Manijeh Badiie

Title: *Analysis of Community Responses to Girls Photovoice*

Abstract: Community-based participatory research emphasizing community-university partnership represents a promising research perspective that can address issues in at-risk communities. The following study represents an example of university response to a community-university research project that highlighted a community-derived needs and strengths assessment. Student participants from California State University San Bernardino were asked to review and provide possible solutions to concerns addressed by a group of female youth ages 8-12 years old at the Boys and Girls Club of Waterman Gardens, a public housing complex in downtown San Bernardino. Student participants responded to qualitative structured prompts signified by the acronym “SHOWED” to evaluate photographs derived from a collaborative Photovoice project using SONA, an online research management system. Participant responses to the “SHOWED” prompts were qualitatively analyzed. The themes developed by the student participants were consistent with the themes initially established by the girls; however, new themes arose from the SONA participant data emphasizing multiple themes such as awareness, safety, and carelessness. The results of this study will help direct potential participatory action research with regards to community-university involvement initiating education and constructive change within the community.

Presenter: Anahi Angel

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. David Chavez

Title: Benefits of Positive Thinking for Children: A Gratitude Intervention

Abstract: In the field of positive psychology, one of the most effective interventions for increasing well-being is gratitude. People who practice gratitude are happier, report experiencing less negative affect, and are overall healthier. However little research has examined these benefits for children. The current study is an intervention aimed to teach children to practice the skill of gratitude and investigate if benefits of gratitude apply to children. Participants were children ages 7 through 12, from low SES families, who attend the Boys and Girls Club of Waterman Gardens in San Bernardino. First, a pre-test was conducted measuring gratitude and positive and negative affect. Children were then exposed to scenarios of positive and negative thinking in order to help them understand the benefits of thinking positively. Then, children were asked to keep a gratitude journal in which they wrote three things they were thankful for everyday for one month, children were also encouraged to draw a picture. Once a week children were gathered and encouraged to share some of their journal entries, and to express how journaling impacted them. Three post-tests were conducted measuring all variables; two weeks into the intervention, immediately after the intervention ended, and lastly, a month after the intervention had ended. Implementing gratitude interventions for children of low SES families is important because they are already at risk for developing a psychological disorder. Providing these children with the skills to have a positive outlook on life is essential for their resilience, and the resilience of the community.

Presenter: Evelyn Ayala

Program: College of Social and Behavioral Sciences, General/ Experimental Psychology, MA

Faculty Sponsor: Dr. Michael Lewin

Title: The Relationship Between Attachment and Depression: The Mediational Role of Shame, Self-Esteem, and Social Support

Abstract: According to the American College Health Association 31.3% of college students reported feeling depressed (2013). Early parental attachment forms an internal working model that is used as

reference for later relationships and experiences (Zaman & Fivush, 2013). Past research suggests that parental attachment was predictive of depression (Leondari & Klosseoglou, 2002) and self-esteem (Kenny & Sirin, 2006). Research has found an association between parental bonding (a related construct of attachment) and shame (Lutwak & Ferrari, 1997). Perceived social support with friends and family was associated with parental attachment perceptions (Mullis et al. 1999). Depression has been associated with self-esteem (Tarlow & Haaga, 1996) and shame (Andrews, Qian, & Valentine, 2002). Parental support was predictive of depression and the onset of major depression (Stice, Ragan, & Randall, 2004). Research is necessary to further understand the negative outcomes of insecure parental attachments as it relates to depression. Purpose of the study is to simultaneously examine three potential mediators (shame, social support, and self-esteem) of the attachment and depression relationship.

Presenter: Elisha Barron

Program: College of Social and Behavioral Sciences, General/Experimental Psychology, MA

Faculty Sponsor: Dr. Kelly Campbell

Title: Catfish: The Best and Worst Qualities of Online Deceptive Relationships

Abstract: Catfish is an increasingly popular concept that refers to using social media to create a false identity, particularly to pursue deceptive online romances. The present exploratory research used an online survey to ask participants both closed and open ended questions about their experiences in their catfish relationships. For the purpose of this presentation, we analyzed open-ended questions relating to the best and worst qualities of these relationships. Responses were qualitatively analyzed for core themes. Participants reported some of the best qualities to be: having someone to talk to who made them feel good emotionally; partner was caring/romantic; having similar interests; and having an escape from their personal life. Some of the worst qualities reported were: being lied to; never meeting or being physically together; feeling the person was secretive or distant; and being hurt in the end. The presentation concludes with directions for future research.

Presenter: Rachel Bravo

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Attraction in Same and Cross Sex Friendships

Abstract: Attraction refers to the act of arousing interest through the emotions or senses. Past research has shown that friendships between heterosexual men and women are different from their same-sex friendships, possibly as a result of attraction. Other research has shown that homosexual individuals are much more likely to form friendships with heterosexuals than with those who share their sexual orientation (Galupo, 2009). The purpose of the present study is to examine attraction in friendships. Specifically, we examined whether heterosexual men and women are able to have platonic friendships with each other; and whether homosexual individuals are able to sustain platonic friendships with same sex others. Participants were 1,175 ethnically diverse men and women from regions across the United States. They were recruited from websites (e.g., Craigslist.org), social media sites (e.g., Facebook), and a university participant management system (i.e., SONA Systems). After providing their consent to participate, individuals completed a 20-minute online survey that included measures to assess demographic characteristics, sociosexual orientation, friendship chemistry, and attraction. Participants also responded to two open-ended questions about what caused the ending of a close friendship with someone of the same or opposite sex. The initial analyses involved qualitatively analyzing the open-ended responses. Results indicated when attraction was present in a relationship on the part of only one of the friends, it had a detrimental effect on the relationship. Contrary to predictions, attraction played a greater role in heterosexuals' cross-sex friendships than in homosexuals' same-sex friendships.

Presenter: Arlene Castro

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Donna Garcia

Title: “She Was Asking For It:” Women Who Slut-Shame Rape Victims

Abstract: Women who experience rape, are often slut-shamed, or derogated and rejected, even by other women. Whether women ostracize or support a rape victim might depend on their endorsement of gender values, and the victim’s response to the rape. Because traditional gender values stipulate that women should restrict their sexuality to control male sexual behavior, traditional women likely hold individual women accountable for sexual assault. Thus, they would see silence as the appropriate response to sexual assault, and “slut-shame” or degrade a woman who claims rape rather than accepting responsibility for enticing the man. In contrast, because feminist values support sexual freedom for women, feminist women likely would see a complaint rather than silence as an appropriate response to rape. We are in the process of testing these predictions. Undergraduate women are completing two online sessions. Session 1 includes measures of traditional and feminist beliefs. In Session 2, participants read about a young female undergraduate who was raped by a male undergraduate at a fraternity party. Participants are randomly assigned to read that the women either filed or did not file a police report. We predict that women high in traditional views will more likely regard the report as inappropriate and especially “slut-shame” the women who reported the rape by claiming she invited the man’s actions. In contrast, women high in feminist views will disagree with the negative comments and not “slut-shame” the woman. Moreover, they will favor the woman who reported rather than did not report the rape.

Presenter: Eric Cazares

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Mark Agars

Title: Overcoming Prejudice against Formerly Incarcerated Individuals: The Value of a College Degree

Abstract: Within the United States, there are currently over 2.2 million individuals incarcerated throughout local, state, and federal correctional institutions. Of those incarcerated in the U.S., it is estimated that roughly 650,000 individuals will transition from correctional facilities to their areas of residency each year. Difficulty establishing stable employment has been observed as a critical determinant of whether formerly incarcerated individuals successfully refrain from criminal activity. Research has found that organizations are willing to discriminate towards ex-offenders during hiring process. With high levels of discrimination taking place, it is important to explore factors that may enhance the employability of formerly incarcerated individuals. Education is a key component for formerly incarcerated individuals and receiving a college degree can help alleviate many of the prejudices experienced when seeking employment post incarceration. The purpose of this study is to examine the effects a college degree will have on the employability of formerly incarcerated individuals applying to low and high level positions. We expect there to be a three-way interaction between incarceration status, education level, and job level (high/low). Such that the buffering effect of education level on the negative impact that incarceration status has on hiring decisions will be greater for higher level positions than for lower level positions. So, ex-offenders who obtained a college degree will experience greater rates of employment when applying to high level positions, than when applying to low level positions (data collection is currently in progress).

Presenter: Bryan Cruz

Program: College of Social and Behavioral Sciences, Biopsychology, BA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Social Defeat Stress Induces Depression-like Behaviors in Adolescent C57BL/6 Mice

Abstract: Exposure to stress is highly correlated with the emergence of mood-related psychopathologies, such as general anxiety and major depressive disorder. Because the first episode of major depression often emerges in adolescence, we investigated the effects of chronic social defeat stress on responses to emotion-eliciting stimuli in juvenile mice. Specifically, postnatal day (PD) 35 male C57BL/6 mice were exposed to 10-minute episodes of social defeat stress for 10 consecutive days (PD35-44), while control mice were handled daily. Twenty-four hours after the last episode of stress (PD45), separate groups of mice were tested on a battery of emotion-eliciting tests, including the social interaction-, forced swim-, and sucrose preference-test. Defeated adolescent mice exhibited a depression-like phenotype as inferred from increased avoidance behavior in the social interaction test, increased time spent immobile in the forced swim test, and a lower preference for a sucrose solution (a measure of anhedonia), when compared to non-defeated controls. In general, we show that exposure too social defeat stress during adolescence induces a depression-like behavioral phenotype in C57BL/6 mice. Thus, our findings suggest that the social defeat paradigm may be used as a model to examine the emergence of stress-induced mood-related disorders during the adolescent stage of development.

Presenter: Tiffany DeLong

Program: College of Social and Behavioral Sciences, Human Development, BA

Faculty Sponsor: Dr. Eugene Wong

Title: Parental Stress and Alcohol Consumption on Parental Self-Efficiency

Abstract: One focus of parenting research examines parental self-efficacy. Previous research in this area has documented a relationship between parental self-efficacy and stress. Variables such as child behavior, family income have been examined as potential stressors that impact a parent's stress and alcohol consumption. Increased alcohol consumption has been correlated with increased levels of parental stress. Alcohol consumption is a stress reducing behavior; the more stress parents have, the more likely they will consume alcohol to help alleviate that stress. Although existing research has examined stress and alcohol consumption as potential predictors of parental self-efficacy independently, little research has looked at these two variables together. The purpose of the current study is to look at the relationship among parental stress, alcohol consumption and parental self-efficacy simultaneously. It is hypothesized that the higher the stress level and more alcohol consumed, the lower parental self-efficacy will be. Seventy five students at California State University, San Bernardino will be recruited for this project; either they will be a parent of at least one child complete the survey instrument. Participants will complete the Parenting Stress Scale, Alcohol Use Disorders Identification Test, The Self-Efficacy for Parenting Task Index, and a demographics questionnaire. Simultaneous regression analyses will be utilized to test the primary hypothesis for this study.

Presenter: Kirk Fortini

Program: College of Social and Behavioral Sciences, Biological Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Skeletons in Your Closet: The Role of Secrecy in Romantic Relationships

Abstract: Secrecy is conceptually defined as an active process of information management, wherein information that is consciously accessible to the secret-keeper and personally distressing is kept from another person. The secret-keeper believes that some aspect of themselves may be unacceptable, and therefore attempts to obscure their "flaw." This then becomes consistent with social exchange theory, where the individual is motivated to preserve a relationship from incurring costs, while at the same time

potentiating rewards. In this study, we examined secrecy as a relationship maintenance tool. We hypothesize that participants with insecure attachment style would be less satisfied with the status of their relationships, and thus engage in secrecy. We also hypothesized that participants with a high risk tolerance would practice secrecy as a means of relationship maintenance. An ethnically diverse sample of men and women was recruited from websites (e.g., Craigslist.org), social media site (e.g., Facebook.com), and a university participant pool. The criteria for participation was that individuals be currently involved in a romantic relationship, of have been recently involved in a long-term relationship satisfaction, behavioral approach, of have been recently involved in a long-term relationship. Participants responded to an online survey that assessed attachment style, relationship satisfaction, behavioral approach and inhibition attitudes, and secret-keeping in the context of romantic relationships (closed and open-ended questions). The hypothesis were supported in that participants with insecure attachment styles and high risk tolerance reported greater secrecy compared to securely attached individuals and those with a low risk tolerance. Applications for study finding are discussed, including their salience within the clinical therapeutic setting.

Presenter: Kirk Fortini

Program: College of Social and Behavioral Sciences, Biological Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Nothing to LOL about: Texting (Mis)communications in Intimate Relationships

Abstract: Technological advancements have facilitated interpersonal communication. For example, partners now communicate more often via electronic means, such as text messaging. However, computer-mediated communications (CMC) lack nonverbal cues that help accurately encode and decode messages. The opportunities for greater communication come with a tradeoff of possible miscommunication. Previous research indicates that communication mediums such as text messaging (i.e., texting) contain an overreliance on the sender's perspective during transmission (Kruger, Eply, Park, & Ng, 2005). In this study, we focused on the miscommunications that occur between relational partners during text exchanges. We recruited an ethnically diverse sample of men and women from websites (e.g., Craigslist.org), social media sites (e.g., Facebook.com), and a university participant pool (i.e., SONA Systems). Participants responded to an online survey containing open and closed-ended questions that were designed to investigate general attitudes toward text messaging in the formation and maintenance of romantic relationships, and the influence of texting toward their relationship satisfaction. We found that, regardless of demographic traits, participants reported having experienced misunderstandings in their interpretations of text messages. Insecure attachment styles reported lower relative relationship satisfaction, greater texting frequency compared to other groups, and had more negative interpretations of their partner's text messages. Text messaging attitudes also varied by gender; males preferred to use text messaging for practical and/or sexual communications, whereas women were more likely to use text messages for relationship maintenance. Applications for these findings are discussed, including how they may be generalized to other relationship types (e.g, friendships, business).

Presenter: Cristina M. Lopez Gonzalez

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Donna Garcia

Title: "They Think We Are..." Mexican Immigrants' Meta- Stereotypes of White-Americans

Abstract: With the increasing number of Mexican nationals migrating to the United States, there has also been an increase in rejection seen from American society. Stereotyping is one of the consequences that Mexican immigrants face when they migrate to the United States. This stereotyping is a problem because people are negatively affected when they are stereotyped, especially by groups of higher social positions. Most researchers have examined these effects from the perspective of the higher status group, that is, in

terms of how high status groups' stereotypes influence how they perceive and treat lower status group members. In our study, we examined the perceptions that Mexican Americans/immigrants have regarding the stereotypes that White-Americans have about them. We are interested in how these "meta-stereotypes" 1) correspond with White-Americans' actual stereotypes, and 2) affect Mexican immigrants/Americans in terms of self-esteem, health, academic performance, and perceived position on the social ladder. We expect that Mexican immigrants will have an accurate sense of White-Americans' stereotypes about Mexican immigrants. Specifically, Mexican immigrants' meta-stereotypes will match with the stereotypes that White-Americans hold about them. Moreover, we hypothesize that Mexican immigrants' self-esteem, health, academic performance, and perceived social position will be negatively affected by their awareness of these stereotypes.

Presenter: Zachary Harmony

Program: College of Social and Behavioral Sciences, Biology Psychology, BA

Faculty Sponsor: Dr. Cynthia Crawford

Title: Effects of Chronic Fluoxetine and Paroxetine on Anxiety-Like Behavior in Adolescent Rats.

Abstracts: The prevalence of Major Depressive Disorder (MDD) in childhood and adolescence is widespread. Fluoxetine, a selective serotonin reuptake inhibitor (SSRI) antidepressant is currently the only FDA approved antidepressant for pediatric populations suffering with MDD. Paroxetine, a very similar SSRI in regards to composition and method of action has been shown to produce age-dependent effects, specifically in suicidal ideation and behavior among adolescent populations. Research regarding the paradoxical effects of these SSRIs on adolescent behavior, and with paroxetine in particular is limited. Consequently, the aim of the present study was to extend the research on the age-dependent effects of chronic fluoxetine and paroxetine treatment in adolescent male and female rats, specifically in regards to anxiety and depression. Sprague-Dawley rats were administered intraperitoneal injections (IP) of paroxetine (2.5, 5, or 10 mg/kg), fluoxetine (5 or 10 mg/kg), or vehicle for 30 days from postnatal day (PD) 30-59. Subsequently, on PD 60, anhedonic and anxiety-like behaviors were assessed using sucrose preference and light/dark box tests. On PD 62, the same rats were tested on the elevated plus maze. It was hypothesized that chronic SSRI treatment would alter sucrose preference, time spent in open arms of the plus maze, and time spent in the light compartment of the light/dark box. The present findings revealed that chronic fluoxetine (10 mg/kg) treatment decreased sucrose preference when compared to vehicle-treated rats (i.e., controls), whereas males ingested more sucrose than females regardless of drug treatment. Interestingly, rats treated with chronic fluoxetine or paroxetine did not show an increase in anxiety-like behaviors tested on the elevated plus maze and light/dark box when compared to control rats. These data suggest that chronic exposure to fluoxetine and paroxetine does not increase anxiety-like behaviors when tested on the light-dark box and elevated plus maze shortly after cessation of treatment. However, when presented with the sucrose preference test, rats given chronic exposure to fluoxetine (10 mg/kg) displayed signs of anhedonia.

Presenter: Kamalpreet Kaur

Program: College of Social and Behavioral Sciences, Psychology/HD, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Infidelity: The Double-Edged Sword

Abstract: The purpose of this research paper is to explain the gender differences between men and women in the context of infidelity. The two concepts (sexual and emotional) of infidelity can occur in any type of affair, such as serial, fling, romantic and long-term affair. Some cues, which may lead to infidelity, are showing too much or too little interest in sexual activity with their partner. Infidelity in romantic relationships can create different gender responses of jealousy: men display physical aggression for anger and sensitivity to sexual infidelity versus women show anger by breaking sentimental gifts and

sensitivity to emotional infidelity. Men and women experience different emotions such as anger, fear, sadness, and guilt when adultery has been committed. Rival characteristics have also been found to evoke different types of jealousy responses; men displayed more feelings of jealousy toward rivals being socially dominant versus women displaying more feelings of jealousy toward rival being physically attractive. Evolutionary theorists explain that men's paternity was at risk by sexual infidelity causing more distress, while women's financial support was at risk if their partner loved another woman leading to more distress by emotional infidelity. Other researchers explain that one's ideas about themselves can lead to gender differences while culture can also explain why men and women respond differently to sexual and emotional infidelity.

Presenter: Kaylee Kono

Program: College of Social and Behavioral Sciences, Psychology/Human Development, BA

Faculty Sponsor: Dr. Eugene Wong

Title: An Analysis of State Anxiety, Trait Anxiety and Procrastination in Relation to Perceived Academic Stress

Abstract: With stress being so prevalent among college students, where academic and social demands are high, it is important to develop an understanding of the factors that may contribute to inducing such a state. Considerable research has focused on the relation between anxiety and stress, while other studies have examined the relation between procrastination and stress. In an attempt to better understand the factors that underlie college students' perceived stress this project focused on state anxiety, trait anxiety, and procrastination as predictors of perceived academic stress. A total of 67 female students from California State University, San Bernardino took part in this study. All participants were English speaking and at least 18 years of age. A simultaneous regression analysis was conducted in order to determine if state anxiety, trait anxiety, and procrastination were significant predictors of academic stress. The regression model was significant with the three quasi-independent variables accounting for 58% of the variance in academic stress. The results of this project provide strong evidence that students' perceptions of anxiety and their procrastination tendencies are significantly associated with academic stress. Future studies will need to address these relations more carefully in order to support student success.

Presenter: Benjamin Miller

Program: College of Social and Behavioral Sciences, General Experimental Psychology, MA

Faculty Sponsor: Dr. John Clapper

Title: Category Sensitivity on a Computerized Categorization Task

Abstract: This research investigates people's ability to spontaneously recognize categories in their visual environment when they are provided with no feedback and are allowed to categorize freely. We hypothesize that people are intuitively sensitive to the overall alignability or degree of correspondence between the features of different objects, and naturally place them into different groups (categories) based on overall alignability. Participants can then compare individual objects on a feature-by-feature basis within these sets or groups. Our previous studies have provided evidence that people are sensitive to the both alignability of objects as well as individual matching features. In these studies participants were shown a 4 x 4 display containing sixteen objects and were instructed to divide these objects into categories by creating a binomial label for each one, with a letter (A, B, C...) representing a superordinate (family) level of categorization followed by a number (1, 2, 3...) representing a more subordinate (species) level of categorization. In the current study we used a computerized version of this task to restrict the amount of active comparison participants could engage in by allowing them to view only one of the sixteen objects at a time. Participants showed the same overall pattern of categorization, based on sensitive to both overall alignability and individual matching features, in both simultaneous and sequential presentation conditions. Implications and next steps are discussed.

Presenters: Vanessa Beckles and Bich Nguyen

Program: College of Social and Behavioral Sciences, Industrial/ Organizational Psychology, MS

Faculty Sponsor: Dr. Janet Kottke

Title: Updating the Glass Cliff: Female Characteristics Perceived Essential for Leading Thriving Companies

Abstract: Glass Cliff researchers have identified leadership characteristics perceived to be important in leading companies in crisis and companies that are thriving. Results of previous studies have indicated that female gender-typed characteristics appear to be preferred when a company is in crisis; male gender-typed characteristics are preferred for a thriving company (Bruckmüller & Branscombe, 2010; Ryan & Haslam, 2005). This gender-typing of characteristics suggests that leaders with stereotypically female traits are perceived to be critical in rescuing a company in crisis. The purpose of our study was to explore the gender-typing of leadership characteristics perceived to be critical in a thriving company versus a company in crisis. A sample of a diverse university population in Southern California were given short vignettes and asked to rank leadership characteristics that would be important for a new CEO. Unlike results of previous studies, no characteristics- male or female-typed- -emerged as highly essential for the leader of the company in crisis. Also contradictory to the glass cliff hypothesis, of the characteristics perceived to be more typical of female leaders, four appeared in the list of five characteristics attributed to leaders of thriving companies (sophisticated, fairness, rationality, and successful self-presentation). These findings appear to disconfirm the assumption that male gender-typed characteristics would automatically be identified as needed for leaders of thriving companies, or that characteristics of female leaders would be seen as particularly appropriate for companies in crisis. Our findings suggest context is important to understanding the parameters of the glass cliff.

Presenter: Sarah Okafuji

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. David Chavez

Title: Understanding Parental Acceptance of Lesbian and Queer Individuals: A Qualitative Investigation

Abstract: Parental acceptance can subsequently reduce the risk to individuals identifying as part of the LGBT community. Family support is predictive of increased self-esteem and mental health among LGBT adolescents. Our purpose was to gain an increased understanding of the factors that are in the way of parental acceptance of LGBT adolescents, as well as how we can help parents move toward greater acceptance. We qualitatively studied this topic by facilitating focus groups of parents of LGBT adolescents. We used a semi-structured interview process with the focus group; we asked three questions to the parents and the subsequent questions arose naturally out of discussion with the parents, individually and as a focus group. Our three questions addressed to the focus group were: What was your main concern when you found out that your child was a part of the LGBTQIA+ community, what joys have you come to realize since your child openly identified themselves as being LGBTQIA+, and what do you wish you would have known. The other questions arose based on the content and the interviews with the focus group and each parent. We found that parents had similar concerns when their child came out to them, and found themes among the parents' coping processes. Some limitations worthy of mention in our study were the absence of interviews with the LGBT adolescents, and the fact that knowing the study was about parental acceptance may have discouraged parents who were less accepting to participate. Subsequent studies should focus on specific family characteristics and their reaction to LGBT adolescent's status, such as ethnicity and religious affiliation. Our study has implications for the parents of LGBT adolescents in that it may help parents with similar situations to those of our focus group, cope with their child's sexual identity and encourage them to seek out supportive parents to speak to. Speaking to other supportive parents may help parents of LGBT adolescents to become more accepting, even proud of their LGBT child.

Presenter: Carlos Ramirez

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Eugene Wong

Title: College Students Self-Perceptions, School Behaviors and Their Impact on School-Related Outcomes.

Abstract: Test anxiety is a maladaptive psychological state that interferes with a student's thought process and impairs performance while taking an exam. The purpose of this study was to examine the ability for self-efficacy and procrastination to predict test anxiety. Specifically, it was hypothesized that self-efficacy will have a negative relationship with test anxiety. In contrast, procrastination will have a positive relationship with test anxiety. Participants were females (N = 73) enrolled in a four-year university in southern California. Students responded to an online survey that measured their levels of academic self-efficacy, test anxiety, and procrastination. A simultaneous regression analysis showed that self-efficacy had significant predictive variable in accounting for students' test anxiety; however, procrastination was not significantly linked to test anxiety in the simultaneous model. The results of this study has implications for college staff who work directly with students in that self-efficacy may be a focus of these staff-student interactions. Limitations of this project and future research directions are discussed, as well.

Presenter: Stephany Ramos

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Enhancing Student Helping Behaviors through Secure Attachment Messages in Lecture

Abstract: Previous studies reveal that individuals with a secure attachment style are more prone to engage in altruistic behaviors. For example, a securely attached individual will act as a "caregiver" when he or she is in a presence of distressed individual. Without the need to fulfill egotistic desires, these individuals will do what is necessary to help a person in distress. The goal of the present study was to examine whether students' willingness to help individuals in distress would be augmented after viewing Secure Attachment Messages (SAM) of secure attachment during lectures in class. We assessed 280 students enrolled in a Race and Racism course at CSUSB. Students were presented with (SAM) in alternating weeks as part of the Powerpoint lecture slides and their likelihood of engaging in altruistic behaviors was assessed. The SAM slides included images and words that were designed to elicit feelings of security, comfort and acceptance. The slides were displayed for approximately 4-5 seconds between the regular lecture slides. The students' likelihood of engaging in altruistic behaviors was measured using a system called Top Hat Monocle. The altruistic questions included hypothetical scenarios pertaining to the likelihood of helping a student in distress. We predicted that the SAM would prompt students to think of their attachment figures (e.g., family members, romantic partners) and enhance feelings of security, love, and comfort, which would in turn increase their willingness engage in altruistic behaviors. Our hypothesis was supported. Students indicated a greater willingness to help a student in need on days for which SAM were shown in lecture. Results suggest that SAM are beneficial to student engagement and promote prosocial behaviors.

Presenter: Nicholas Rockwood

Program: College of Social and Behavioral, Psychology, BA

Faculty Sponsor: Dr. Matt Riggs

Title: Rasch Rating Scale Model and Traditional Psychometric Methods: A Comparative Study

Abstract: The use of Likert scales in applied psychological research is often assumed to be measurement at the interval level. Item scores are usually summed or averaged and the scale scores are

used in parametric statistical analyses. However, Likert scales do not often meet the requirements of true measurement at the interval level. That is, the difference between “Strongly Agree” and “Agree” cannot be assumed to equal the distance between “Agree” and “Neither Agree nor Disagree.” In addition, a “Strongly Agree” on one item does not equal a “Strongly Agree” on the next item. The Rasch Rating Scale Model attempts to fix the unequal interval problem by converting items and participant responses into log-odds units (logits). The purpose of this study is to provide an initial test of the resulting differences of using summed or averaged scale scores compared to Rasch scores when testing a set of hypotheses. Likert scales were used to measure two psychological constructs. Averaged scores were calculated as well as Rasch scores for each of the scales. Each of these will then be used in two moderated linear regression analyses. Differences in the results will be evaluated. Results are not expected to reveal immense differences, but, given the stricter requirements of the Rasch Rating Scale, the use of these scores is expected to have less measurement error, ultimately resulting in a better estimate of true effects.

Presenter: Diana Robinson

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Robert Ricco

Title: Attachment, Negative Emotionality, and Intimate Partner Violence

Abstract: The present study examined the claim that negative emotionality (NEM) plays a key mediating role in the relationship between attachment security and risk of becoming a victim or perpetrator of intimate partner violence (IPV). Participants were asked to complete a series of questionnaires: the Relationship Scales Questionnaire (RSQ) assessing an individual’s adult romantic attachment style, the Conflict Tactics Scale 2 (CTS-2) measuring the incidence of aggression and violence in an individual’s relationship, i.e., their risk for IPV, and the NEM scale of the Multidimensional Personality Questionnaire (MPQ-276) measuring an individual’s level of NEM. There were a total of 507 participants (449 Female, 58 Male). We expected individuals with an insecure adult attachment style to rate higher on the NEM-MPQ-276 and the CTS-2 than individuals with a secure adult attachment style, indicating higher NEM and risk for IPV in insecure individuals. We also expected that individuals rating higher on the NEM-MPQ-276 will have higher rating on the CTS-2. Finally, we expected that the relationship between attachment style and IPV would be partially-to-fully mediated by NEM. Consistent with the study hypothesis, Intimate Partner Violence perpetration and Intimate Partner Violence victimization can be predicted by an individual’s Attachment style and their level of Negative Emotionality. Participants that had an insecure attachment style had higher level of negative emotionality and were more likely to be a victim or perpetrator of IPV than participants with a secure attachment style. NEM was also associated with risk for IPV.

Presenters: Jung-Jung Lee and Jose Rodriguez

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Donna Garcia

Title: Getting Nowhere Fast: Understanding the Role of Multitasking on Performance and Stress

Abstract: Multitasking, or the ability to perform multiple tasks simultaneously, is highly valued in society, especially in workplaces. More and more applicants list multi-tasking as a skill in their resumes, and many companies list this “skill” in job advertisements. The current value placed on multitasking begs the questions: Is there such a thing as multitasking and are some people better at it than other are? To address these questions, we are currently testing the effect of multitasking on performance, stress, self-efficacy, and self-esteem. Participants are coming to our lab to complete three common workplace tasks, which they complete in one of three ways. In the Multitasking Condition, participants are told they must respond “yes” whenever they are interrupted by a prompt that asks whether they wish to switch to the next task (they will be switched among the 3 tasks regularly). In the Sequential Tasking Interruption

Control Condition, participants are told to respond “no” when they are interrupted by the same prompts. In the Sequential Tasking No-Interruption Control Condition (which has no prompts), participants are asked to complete the tasks one at a time, as they appear. We expect that relative to those in the sequential tasking conditions (with or without interruption), people in the multitasking condition will perform less well (i.e., make more errors and get less done) on the tasks, report lower self-efficacy and self-esteem, and report higher levels of stress. In other words, “multitaskers” will show the worse outcomes overall relative to those who sequentially task.

Presenter: Jeara Romasanta

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Kelly Campbell

Title: Mate Rivalry in Friendships: A Lifespan-Evolutionary Perspective

Abstract: According to evolutionary psychology, friendships enhance genetic fitness because they offer support in times of sickness and rejoice in times of happiness. Recent research continues to demonstrate the benefits of friendships for health (e.g., Mukerjee, 2013; Tay, Tan, Diener, & Gonzalez, 2013). However, friendships may have adverse consequences for genetic fitness if a poor match is chosen. For example, having a close friend who is highly similar in terms of intrapersonal traits (e.g., values, interests) and choice of mates would pose a reproductive threat, particularly if the friend interacts regularly with one’s romantic partner. From an evolutionary standpoint, individuals are therefore expected to select friends who have dissimilar mate preferences (Bleske & Shackelford, 2001). Based on evolutionary psychology, we predicted that individuals would be less likely to have close friends with similar mate preferences, especially as they get older and/or involved in a serious romantic relationship (e.g., get married, have children). Participants were 1,142 ethnically diverse individuals recruited from university participant pools. Participants completed a mixed-method online survey with quantitative and qualitative questions. The quantitative questions assessed demographic characteristics, mate rivalry, friendship intimacy, and friendships throughout the lifespan. Open-ended questions asked participants to qualitatively describe their own and best friends’ mate preferences and feelings associated with their relationship at various points. Our hypothesis was supported: Individuals were more likely to report having friends with similar mate preferences when they were younger and/or less seriously involved with a romantic partner. Friendship intimacy also declined with age. We discuss our findings according to evolutionary psychology and suggest possibilities for future research.

Presenter: Elizabeth Flores, Chien Originales, and Kristi Shawhan

Program: College of Social and Behavioral Sciences, Biological Psychology, BA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Ketamine Prevents the Development of Avoidance Behavior after Social Defeat Stress in Adolescent Male Mice

Abstract: Approximately 10% of children and adolescents are diagnosed with major depressive disorder (MDD). Currently, there are limited therapeutic agents to treat MDD in juvenile populations, when compared to numerous options available for adults. To make matters worse, about 50% of adolescents with MDD are unresponsive to available treatments, which demonstrates the need to identify alternative pharmaceutical compounds for the management of juvenile MDD. In adult populations, ketamine an N-methyl-D-aspartate (NMDA) receptor antagonist has recently shown the capacity for rapid-acting and long-lasting antidepressant efficacy in both preclinical and clinical studies. Thus, to examine whether ketamine could be potential rapid and effective therapeutic agent for juvenile MDD, we exposed adolescent male c57BL/6 mice (postnatal day [PD]35) to 10 days of social defeat stress – a common paradigm used to induce depression-like behaviors in rodents. Specifically, separate groups of defeated and non-defeated (control) adolescent mice were administered with saline or ketamine (20 mg/kg) either

after each (chronic), or the last (acute) episode of defeat stress. Twenty-four hr later (PD45), all mice were tested for depression-like behavior, as inferred from the social interaction test (n= 7-12 per group). As expected, adolescent defeated mice administered with saline (chronic and acute) exhibited a depressive-like phenotype (increased social avoidance). Conversely, both chronic and acute exposure to ketamine prevented the development of the stress-induced avoidance phenotype seen after social defeat stress. Together, these findings indicate that the anesthetic ketamine may be a promising novel agent for the treatment of juvenile MDD.

Presenter: Gregory Smith

Program: College of Social and Behavioral Sciences, General/ Experimental Psychology, MA

Faculty Sponsor: Dr. John Clapper

Title: Feature Overlap on Categorization in a Binomial Labeling Paradigm

Abstract: This research investigates how common and distinctive features are weighed in free categorization, an essential human learning ability. Participants viewed 16 novel objects arranged in 4 x 4 arrays and were asked to divide them into categories by providing a binomial (family, species) label for each item. The objects were naturally divisible into three broad families. Members of each family were structurally alignable while sharing no specific features, with the exception of a single pair that shared from one to four (out of four) features in common. People were sensitive to overall alignability, being much more likely to assign the same family label to alignable than to non-alignable objects. People also show sensitivity to matching features within each family; the probability of assigning two instances their own distinctive species label increased exponentially with the number of features they shared. In a second experiment, participants rated the similarity of selected pairs of objects from the same 4 x 4 arrays on a 20- point scale. Alignable objects were rated as being much more similar than non-alignable objects, indicating a sensitivity to alignability-based categories. In contrast to the labeling data, rated similarity increased linearly, rather than exponentially, as the number of features shared by two alignable objects increased from one to four. Possible explanations for these somewhat divergent similarity effects, as well as future lines of research, will be discussed.

Presenter: Salena Soria

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Mark Agars

Title: Work Characteristics on Family Rituals and Health Habits in Low-Income Populations

Abstract: There is no doubting the connection between management of work-family interface and health. Researchers have demonstrated strong relationships between work-family conflict and self-reports of health and stress (Allen et al., 2000), lower family meal times (Milkie et al, 2004), and lowered health habits which leads to more strain and stress on the job (Heikkla, Fransson, Nyberg et al, 2013). The study conducted looked at how having control at one's job and flexibility of work hours affects family meal-time rituals and health habits. It was hypothesized that when a person has more control in their job and has flexible work hours than it will have a positive effect on family meal-time rituals and on individual's health habits. The moderator of supervisor support was also looked into and how it will increase these relationships more when added. The sample consisted of 200 participants. All were above the age 18 and had a household income below or at the 200% poverty level based off federalregister.gov guidelines and recruited off a snowball technique with the students at California State University, San Bernardino.

Presenter: Lunder Vansa

Program: College of Social and Behavioral Sciences, Biopsychology, BA

Faculty Sponsor: Dr. Mark Agars

Title: Threat and Fairness Around Diversity Management: Testing Full Integration Theory

Abstract: The ability to effectively manage workforce diversity is an increasingly important task for most organizations. Despite the fact that numerous organizations have implemented some form of diversity management, guidance from research has been limited. The present study tests a theory of diversity management that suggests managing employee perceptions of threat and fairness is critical to successful implementation. The current study finds support for the theory, and demonstrates that the actions of top leadership and the structures, policies, and practices implemented around diversity, have an important impact on fairness perceptions, which in turn impact employee perceptions of diversity management efforts.

Presenters: Erin Alderson and Gino Veltri

Program: College of Social and Behavioral Sciences, Biological Psychology, BA

College of Social and Behavioral Sciences, General Experimental Psychology, MA

Faculty Sponsor: Dr. Hideya Koshino

Title: Effects of Perceptual Load and Working Memory On a Simon Task

Abstract: According to Perceptual load (PL) hypothesis PL is one of the determining factors of attentional selection. A variation of the Erikson flanker task is generally used for PL tasks, but the Simon task is another interference task. In the Simon effect reaction times are shorter for targets presented on the same side as the response, despite the target location being irrelevant. Working memory (WM) content has also been shown to capture attention in previous research. Therefore the relative effectiveness of attentional selection between PL and WM in a Simon task was investigated. A compatibility effect for the LPL condition, but not for the HPL condition was expected. Participants (n=15) were asked to keep the location of an item in memory, perform a letter discrimination task with varied PL, and answer if an item was in the same location as the memory item. The three levels of PL were no PL (target alone) which is a typical Simon task, LPL (three homogenous distractors: O), and HPL (three homogenous distractors: V, T, K). Accordingly the design was a 3 (no PL, LPL, HPL) X 2 (Memory: same, different), X 2 (compatible, incompatible) within participant design. Results showed a Simon effect for HPL, when the memory and target location matched, which is consistent with the attention shift model of the Simon effect. However, when the memory and target locations did not match there was Simon effect only for the no PL condition, due to how well targets popped out during a visual search.

Oral Presentations

Presenter: Ashley Araiza

Program: College of Social and Behavioral Sciences, Biological Psychology, BA

Faculty Sponsor: Dr. Michael Lewin

Title: Examining the Relationship between Early Maladaptive Schemas, Stress, Emotion Regulation, and Alcohol Use in College Students

Abstract: College students frequently engage in drinking habits that may be detrimental to their health. Because these habits can lead to physical and mental health consequences, it is crucial to delineate the specific predictors of problem alcohol use in college students. One potential predictor is cognitive vulnerability; specifically Early Maladaptive Schemas (EMS). Early Maladaptive Schemas are dysfunctional beliefs about oneself and relationships that develop during childhood or adolescence and

continue throughout life (Young, Klosko, & Weishaar, 2003). Emotion regulation (ER) strategies, which are used by individuals to help regulate and manage their emotions, have also been suggested as predictors of risky substance use. Furthermore, stress has been implicated as a predictor of many negative health behaviors (Lazarus, 1984), including substance use. Thus, the purpose of the present study was to examine which EMS were predictive of alcohol use in college students, and the relationships between the various EMS and alcohol use, as well as whether any of these relationships were mediated by ER and/or moderated by stress, will be presented. Additionally, further details of these findings and their practical implications will be discussed.

Presenter: Richard Butler

Program: College of Social and Behavioral Sciences, History, BA

Faculty Sponsor: Dr. Jeremy Murray

Title: The Goose-Step is Only Functional for Geese

Abstract: This article aims to examine the nuances of both the Intentionalist and Functionalist perspectives as they relate to Nazi Germany and the Holocaust. While acknowledging the ongoing debate between the two ideological camps a new perspective is suggested as being a more appropriate means to understand the event. The new perspective is heavily influenced by the research done by authors such as Timothy Snyder, Donald Bloxham and Christopher Browning. The research conducted suggests that instead of the two perspectives competing for prominence, a synthetic approach is more effective in analyzing Nazi Germany and the resulting atrocities. The new perspective is labeled as modified Intentionalist in the article, a perspective that asserts that the intentions of leadership created a society of functionaries, and with this understanding a fuller understanding of the subject matter is gained. Secondary to the examination of the perspectives, the article also offers commentary on what events such as Nazi Germany has had on humanity's progression through modernity.

Presenter: Vanessa Carlos

Program: College of Social and Behavioral Sciences, Psychology/HD, BA

Faculty Sponsor: Dr. Jason Reimer

Title: "Constrained Retrieval in Children and Young Adults"

Abstract: The ability to control one's thoughts and actions (i.e., cognitive control) is important in both educational and social settings. As with many cognitive-related processes, cognitive control has been found to change throughout development (e.g., Jacoby, Shimizu, Velanova, & Rhodes, 2005). Memory retrieval processes have also been found to be influenced by cognitive control (Jacoby et al., 2005). Recent research by Jacoby and colleagues suggests that during retrieval processes, specific cognitive control mechanisms (i.e., source constrained retrieval) are used to constrain retrieval, such that only information from a wanted source comes to mind (Halamish, Goldsmith, & Jacoby, 2012; Jacoby et al., 2005; Jacoby, Shimizu, Daniels, & Rhodes, 2005; Shimizu & Jacoby, 2005). The purpose of the current study was to investigate any developmental differences in the use of source constrained retrieval between children and adults. A memory-for-foils paradigm was used to examine any differences in the use of source constrained retrieval by third-grade-children (36) and adults (36). Results indicated a significant difference in the use of source constrained retrieval by third-grade-children and adults. That is, adults remembered significantly more deep foils than shallow foils (i.e., a significant source constrained retrieval effect), whereas third-grade-children remembered deep and shallow foils equally (i.e., no

significant source constrained retrieval effect). These results suggested that cognitive control deficits in third-grade-children (as a result of ongoing maturation) do not allow them to rely on source constrained retrieval mechanisms during memory retrieval, but rather may rely on the use of other less constrained retrieval processes

Presenter: Beatrice Longshore-Cook

Program: College of Social and Behavioral Sciences, Social Science, MA

Faculty Sponsor: Dr. Kevin Grisham

Title: Organizing of Women: Nationalism and Feminism in Palestine

Abstract: The development and struggle for nationalism in Palestine, as seen through an historical overview of the Israeli-Palestinian conflict, demonstrates the complexity of gendered spaces and narratives inherent in the conflict. Women's roles are confined to specific, gendered spaces and within their society; however, feminist literature suggests that through the utilization of these roles, women are able to circumnavigate the gendered spaces of their society in order to effectively alter the political and social systems of Palestine and Israel. Through a discussion of women's unions and grassroots organizations – specifically the Palestine Women's Union, the Palestinian Federation of Women's Action Committee (PFWAC), the Jerusalem Center for Women (JCW), and the Women's Centre for Legal Aid and Counseling (WLAC) – active in the historical and present conflict, this paper will demonstrate the significance of Palestinian women's agency in the nationalist struggle. A nationalist agenda is not proposed within each organization, but the work of each furthers the nationalist cause as they strengthen the rights and abilities of specific segments of the Palestinian population. These organizations clearly demonstrate the ability of women in Palestine to act upon their own intentions, desires, and motivations, through the maximization of the gendered spaces, in order to achieve gender, political, social, and national change.

Presenter: Genesis Dayrit

Program: College of Social and Behavioral Sciences, Biology, BS

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Ketamine Exposure Attenuates Social Avoidance Behavior Following Social Defeat Stress in Adolescence

Abstract: Nearly 8% of children and adolescents suffer from Major Depressive Disorder (MDD). However, the current available pharmacological treatments improve symptoms in only a small portion of this depressed population. Ketamine, an anesthetic, has been recently proposed for the treatment of clinical depression due to its effectiveness as a rapid-acting antidepressant in adult MDD patients. Despite this, it is not yet known whether ketamine is an effective treatment for mood-related disorders in adolescent populations. Thus, to assess the potential fast-acting antidepressant-like properties of ketamine in juveniles, we exposed adolescent male mice to 10 days of social defeat stress (postnatal days 35-44) a behavioral procedure that is commonly used to study depression at the preclinical level. Immediately after the final stress episode, mice received either ketamine (20 mg/kg) or saline. On the following day (postnatal day 45), mice were screened for social avoidance behavior. As expected, saline pretreated mice (controls) displayed a depressive-like behavior phenotype, as inferred from increased avoidant behavior. Conversely, ketamine-treated mice spent more time interacting with a social target, and were less avoidant, when compared to their control counterparts. Collectively, this indicates that ketamine reversed

the depressive-like behavior observed after chronic exposure to social stressors in adolescent C57BL/6 mice. As such, our data suggest that ketamine may be an effective treatment for adolescent MDD.

Presenter: Yuliana Diaz

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Michael Lewin

Title: The Relation Between Schemas, Emotion Regulation and Depression

Abstract: According to the National Institute of Mental Health (NIMH, 2013), depression is often experienced for the first time during the college years. Moreover, results of the 2013 American College Health Association (ACHA) National College Health Assessment (NCHA) revealed that 31.8% of college students reported that their experience of depression in the last 12 months made it difficult to function in their daily lives. Cognitive models suggest that psychopathology is the result of the interaction of dysfunctional views of self and others and life events. It has been suggested that mood disorders such as depression may be linked to early maladaptive schemas (EMS; Young, Klosko & Weishaar, 2004) defined as negative cognitive biases, developed in response to dysfunctional developmental experiences, reinforced across the lifespan and affect perceptions of life events (Young et al., 2004). Emotional regulation (ER) has also been shown to be related to depression (Yoon, Maltby & Joormann, 2013). Gross and John (2003) defined two prominent ER strategies: 1) **Cognitive Reappraisal** (changing the emotional impact by reframing the meaning of the situation) and 2) **Expressive Suppression** (changing the emotional impact by inhibiting the experience of emotion). Therefore, based on the current literature we hypothesized that the EMS of abandonment/instability, vulnerability to harm and defectiveness shame would have a positive relationship with depression. Second, we hypothesized that cognitive reappraisal would be inversely related with depression. Conversely, it was hypothesized that expressive suppression would be positively relationship with depression. Lastly, it was hypothesized that emotion regulation would mediate the EMS-depression relationship.

Presenter: Brian Evans

Program: College of Social and Behavioral Sciences, Physical Anthropology, BA

Faculty Sponsor: Dr. Robert Shaw and Dr. Wesley Niewoehner

Title: “Environmental Causes of Multiple Sclerosis and certain other Co-occurring Diseases”

Abstract: Environmental Causes: Multiple Sclerosis and co-occurrence of many other immune system dysfunctions, certain non-viral genetic cancers and mitochondrial mutations. A translational medical anthropological research discovery.

Presenter: Michelle Fabros

Program: College of Social and Behavioral Sciences, General/Experimental Psychology, MA

Faculty Sponsor: Dr. Donna Garcia

Title: The Use of Religion as Justification for Homosexual Prejudice

Abstract: The Westboro Baptist Church are notorious for their signs proclaiming anti-homosexuality epithets such as “God Hates Fag,” and references to Biblical verses to revile homosexuality (e.g., Romans 1:24-27). Although the homonegative bias that Westboro patrons and many Christians express is often understood as being rooted in religion, we explored the possibility religion can be a justification rather than source of homonegativity. Participants specified their religious affiliation and political orientation

and then completed measures of implicit homonegativity bias and religiosity. We hypothesized that when participants were given false feedback and told they held negative biases towards homosexuals, participants would be more religious compared to those who were given neutral feedback and told they held no biases towards homosexuals or heterosexuals. This effect was moderated by political affiliation. We found that liberals were more religious after receiving false feedback that said they held negative biases towards homosexuals, compared to conservatives when given the same feedback. There were no differences between those given neutral feedback that told participants they held no biases towards homosexuals or heterosexuals. We suggest the differences between liberals and conservative in the negative feedback condition might be due to differences in political and egalitarian ideology. When liberals are told they are prejudice, participants' higher religiosity might be an attempt at reducing the dissonance between their feedback and ideology. These findings lend support to the notion that in some cases, religion might serve as a justification for some people's negative attitudes towards homosexuals rather than being the source of it.

Presenter: Jacqueline McConnaughy

Program: College of Social and Behavioral Sciences, Industrial Organizational Psychology, MS

Faculty Sponsor: Dr. Mark Agars

Title: Development of an Employee Green Behavior Descriptive Norms Scale

Abstract: With a growing interest in sustainability, organizations and researchers have begun to examine pro-environmental behaviors in the workplace (i.e. employee green behaviors [EGBs]). However, research is currently limited due to a lack of measurement tools. In this paper, a new scale is developed to measure EGB descriptive norms, which are a source of influence on EGBs that develop from observing others' behavior. Initial items for the EGB Descriptive Norms Scale were developed based on the Green Five Taxonomy of EGBs and refined through pilot test data and retranslation task. Data on the final scale, the Ethical Leadership Questionnaire, and a Work-Family Culture Scale will be used to test the structure of the scale and gather evidence of construct validity. A multi-item, validated scale will contribute to organizational assessment of EGB descriptive norms and contribute to the scientific literature on EGBs.

Presenter: Alexander McKay

Program: College of Social and Behavioral Sciences, Experimental Psychology, MA

Faculty Sponsor: Dr. Donna Garcia

Title: Reducing Careless Responding in Survey Research: The Effects of Honor Codes and Watchful Eyes

Abstract: Careless responders have a large impact on a study because they reduce the quality of the data, which then wastes researchers' time and money. Research on careless responding has focused on detecting and removing careless responders rather than reducing careless responding before data collection begins. The purpose of the present study was to test different methods that reduce careless responding by increasing self-awareness. Two methods, the use of an honor code and watchful eyes, were tested. Participants (N=305) were randomly assigned to one of five honor code conditions (control condition, read-only condition, type condition, read-and-eyes condition, or type-and-eyes condition) and then completed a number of personality measures. The responses participants provided were screened for careless responding. I found that when participants only read an honor code without a picture of eyes on the screen, they were significantly more likely to engage in careless responding than the control condition. There was no significant difference in careless responding in the control condition compared to the other three conditions. The findings indicate that participants who were presented with an honor code

and no other cues of moral behavior, might show psychological reactance, and respond carelessly as defiance. Additionally, there were no differences in participants' responses across conditions on a number of personality measures that could be sensitive to increased self-awareness. The present study provides answers to a number of useful questions that can be used to improve data quality and reduce the negative effects of honor codes on careless responding behaviors.

Presenter: Lisa Motely

Program: College of Social and Behavioral Sciences, Psychology, MA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Antidepressant-like Effects of Abilify and Prozac in Juvenile C57BL/6 Mice

Abstract: There is a rise in the concomitant use of aripiprazole (Abilify®) and fluoxetine (Prozac®) in pediatric populations. Recent preclinical and clinical reports show that this combined pharmacological approach results in an augmentation of the therapeutic properties of traditional antidepressants in adults; however, the antidepressant-like effectiveness of this combination treatment has not been evaluated in the juvenile population. To address this issue at the preclinical level, we administered an acute injection of saline (placebo), or a combination sub threshold dose of Prozac (5 or 10 mg/kg) with Abilify (0.5mg/kg) to adolescent male C57BL/6 mice (postnatal day 35). Thirty minutes after drug exposure, the adolescent mice were exposed to the tail suspension test- a behavioral assay commonly used to screen for antidepressant efficacy. Our results show that adolescent mice administered with Prozac (10 mg/kg) in combination with Abilify (0.5 mg/kg) display a significant decrease in the time spent immobile when compared to control (saline-treated) mice; a behavioral profile described as “antidepressant-like” across the literature. As such, these results suggest that concomitant treatment of Prozac with Abilify may be an option for treatment-resistant depression in the pediatric population.

Presenters: Jovanni Holloway and Aleida Murcia

Program: College of Social and Behavioral Sciences, Social Work, MS

Faculty Sponsor: Dr. Zoila Gordon

Title: Mentoring and Social Workers' Job Satisfaction and Intention to Remain Employed in Child Welfare.

Abstract: This study explored the relationship between mentoring and social workers' job satisfaction and social workers' intention to remain employed in child welfare. This study was conducted in Children Family Services (CFS), San Bernardino. 96 child welfare workers completed the survey using the JSS-CW and the IRE-CW instruments. A quantitative research design was utilized to analyze the data. Specifically, an Independent Sample T-Test was used to determine differences between the social workers who had a mentor and those who did not. Additionally, a Pearson R Correlation Test was conducted to analyze the relationship between mentoring and the different factors influencing the dependent variables. The present study revealed no correlation between informal mentoring and social workers' levels of job satisfaction and their intentions to remain employed in child welfare in San Bernardino County. The study also revealed that although child welfare workers were highly satisfied at their jobs they still intended to leave child welfare if they were presented with a better job opportunity. These findings cannot be generalized because this study was designed specifically for San Bernardino County and the validity and reliability of the JSS-CW is unknown. Further research on mentorship, more specifically formalized mentoring programs, is recommended.

Presenter: Meagan Muschara

Program: College of Social and Behavioral Sciences, History, BA

Faculty Sponsor: Dr. Jeremy Murray

Title: The Evolution of Equality Among PKK Female Guerilla Fighters

Abstract: The PPK spearheaded a vast movement for equality among other Kurdish guerilla groups. Currently, the call for gender equality has grown increasingly more acceptable throughout the Kurdish community that women openly speak about gender egalitarianism. On March 20, 2014, at the celebration of International Women's Day in Syria, Sharmiran Sham'un, the Christian deputy of Cizire Canton Foreign Office eloquently spoke to a massive crowd of people who were primarily women. Sham'un brilliantly pointed out that a nation is not truly free unless the residing women are equally free. She then states, "We must follow Kurdish women as a model, who have taken up arms to defend their gender rights, land and honour." Through gender equality for women spawned from the PKK, Kurdish women were not considered equal to men upon the creation of the party. ON paper, man and women were not considered equal, but is the PPK actually gender neutral in practice? The motives for creating gender equality were not based on benevolence of fairness, but rather on a plethora of ulterior motives. That is to say egalitarianism evolved out political necessity as well as ethnic and cultural preservation. Thus, the PKK created gender reform that is lightly seasoned with traditional Kurdish values while still appearing to be primarily progressive. The women claim that there are a multitude of factors that called them to join the PKK as guerilla fighters in the mountains. Claims consist of the PPK offering women an outlet from the culturally restircing customs which treat the women as property, the ability to continue education without gender discrimination, and the freedom to enjoy equal gender and social status within the party. However, the paper will attempt to challenge this ideal by shedding light on the restrictions placed within the PKK and to uncover what gender equality means within the PKK for female cadres and to what extent is equality truly practiced.

Presenter: Steven Nieto

Program: College of Social and Behavioral, Psychology, BA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Prozac Exposure during Adolescence Enhances Sensitivity to Cocaine in Adulthood

Abstract: Diagnosing pediatric populations with major depressive disorder (MDD) was almost unthinkable until several years ago. Children and adolescents who suffer from MDD often develop conduct and anxiety illnesses, and up to 25% develop substance abuse disorders. Consequently, this has resulted in a disproportionate increase in the prevalence of antidepressants prescribed to these populations. In particular, prescription rates of Fluoxetine (FLX), a selective serotonin reuptake inhibitor, are on the rise. Despite the heightened rates of antidepressant use in the population, it is surprising how little is known about the potential long-term consequences resulting from FLX treatment during periods prior to adulthood. To address this issue at the preclinical level, we examined whether FLX (20 mg/kg) exposure during adolescence, or adulthood, results in long-lasting changes in sensitivity to the rewarding effects of cocaine. Specifically, separate groups of adolescent [postnatal day (PD)-35] and adult (PD65) male C57BL/6 mice were exposed to FLX for 15 consecutive days. Three-weeks post antidepressant treatment (PD75 for adolescents and PD105 for adults), mice were assessed on behavioral responsivity to cocaine (0, 2.5, 5, 10, or 20 mg/kg) using the conditional place preference (CPP) paradigm. We found that mice pre-treated with FLX during adolescence (PD35-49), but not adulthood (PD65-79), displayed enhanced preference for environments previously paired with moderately low doses of cocaine (5 or 10 mg/kg), when compared to saline pre-tested age-matched controls. Together, our findings indicate that

repeated exposure to FLX during the adolescent stage of development increases sensitivity to the rewarding effects of cocaine, later in life.

Presenter: Catherine Ou

Program: College of Social and Behavioral Sciences, Experimental Psychology, Economics, MA

Faculty Sponsor: Dr. Daniel MacDonald

Title: Online Gaming and its Productivity

Abstract: The standard economic theory suggests that participation in online games is pure consumption of leisure time or unproductive in terms of measuring GDP. In this paper, I will argue that through participation in online games, it gives individuals a sense of community, increases one's cognitive abilities and has a potential to contribute collectively towards a "greater good". Researchers suggest that online gaming indeed has a positive contribution to a person's life that increases social capital and cognitive abilities could in turn contribute to a happier life and be more productive. Gaming utilized by the right group of people can contribute to sciences and benefit the society and even the human race. The benefits from such cultivation of the collective intelligence around the world are far beyond the measures in raising GDP. Crowdsourcing without borders and boundaries can bring everyone around the world to try solving the toughest issues like climate change; however, spending too much time on gaming can be a drawback not only individually but collectively as well.

Presenter: Austin Ramirez

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Matt Riggs

Title: Formal Mentoring: Increasing Academic Performance, Retention, and Graduation Rates at CSUSB

Abstract: The purpose of this research was to evaluate a formal mentoring program at California State University, San Bernardino with regards to its mission statement of "fostering the retention, academic success, and graduation of students". Archival data between the 2003-04 and 2012-13 academic years was examined to identify 1,032 students who received formal mentoring (identified as protégés) from this specific program. A matched-pairs design was then utilized to match protégés with 1,032 non-mentored students on the basis of gender, ethnicity, matriculation in same year and quarter, first-time freshman status, high school GPA, and remediation status. Statistical analyses showed protégés had significantly higher grade point averages, retention rates, and graduation rates.

Presenter: Jose Renteria

Program: College of Social and Behavioral Sciences, History, BA

Faculty Sponsor: Dr. Pedro Santoni

Title: Racial Theory: José Martí, José Vasconcelos, and the Beliefs that Shaped Latin America

Abstract: This research compares and contrasts the racial theories of José Martí and José Vasconcelos, two prominent Latin American intellectuals. It analyzes the social conditions each experienced in their respective time period and location, as well as explains how such exposures led to their racial understanding and political agendas. The study primarily reveals how nationalistic movements developed due to their influential ideologies, and how both intellectuals influenced other prominent Latin American figures. Lastly, it sheds light on the elements of Martí's and Vasconcelos' ideals that remain extant.

Presenter: Lace Riggs

Program: College of Social and Behavioral Sciences, General/ Experimental Psychology, MA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Prozac Exposure During Adolescence Alters Responses to Aversive Stimuli in Adulthood

Abstract: The mechanisms underlying the enduring neurobiological consequences of antidepressant exposure during adolescence are poorly understood. Thus, we examined the long-term effects of exposure to fluoxetine (FLX), also known as Prozac, during adolescence on behavioral reactivity to the tail suspension test (TST) - a behavioral measure commonly used to screen for antidepressant efficacy in rodent models of depression. Specifically, we administered FLX (20 mg/kg) to adolescent c57BL/6 male mice (postnatal days 35-49), and assessed their reactivity to the TST, 21 days after treatment (i.e. adulthood). Repeated FLX exposure during adolescence resulted in decreased time spent immobile, when compared to saline (placebo) pretreated animals, in adulthood (i.e. an enduring antidepressant-like behavior). To characterize the neurobiological mechanisms that underlies this behavioral phenotype, we examined the role of *extracellular signal-regulated kinase* (ERK), a signaling molecule that has been previously implicated in mood regulation, within the ventral tegmental area (VTA) of the midbrain. To do this, we used a virus-mediated gene transfer approach to experimentally manipulate ERK expression within the VTA of adult mice (postnatal day 70) pretreated with either saline or FLX during adolescence. Virus-mediated upregulation of ERK activity within the VTA reversed the enduring effects induced by juvenile FLX pretreatment, suggesting that FLX exposure during adolescence modulates responses to aversive stimuli in adulthood via long-lasting adaptations in ERK signaling within the VTA.

Presenter: Ricardo Rodriguez

Program: College of Social and Behavioral Sciences, Psychology, BA

Faculty Sponsor: Dr. Sergio Iñiguez

Title: Long-lasting Effects of Prozac Exposure during Adolescence on Anxiety-inducing Situations in Adulthood

Abstract: There is preclinical evidence indicating that exposure to traditional “antidepressant” medications during early development results in long-lasting mood-related behavioral alterations in adulthood. Because Fluoxetine (FLX), commonly known as Prozac, is the most prescribed antidepressant for the treatment of pediatric depression, we examined whether exposure to this pharmaceutical agent during adolescence would result in increased sensitivity to anxiety-inducing situations in adulthood. To do this, we administered FLX (20mg/kg) to separate groups of C57BL/6 adolescent male mice for 15 consecutive days (postnatal days 35-49). Three weeks after antidepressant treatment, when mice reach adulthood (postnatal day 70), they were tested on the elevated plus maze (EPM) or the novelty-induced hypophagia (NIH) behavioral assays. Adult mice pretreated with FLX during adolescence spent significantly less time in the open arms, while spending significantly more time in the closed arms, of the EPM. Also, FLX pretreated mice tested on the NIH test displayed a significantly increased latency to feed in a novel environment—a behavioral response that is traditionally described as an anxiogenic-like effect. Collectively, our behavioral data suggests that adult male C57BL/6 mice pretreated with FLX during adolescence display increased sensitivity to anxiety-inducing

Presenter: Jason Tsukahara

Program: College of Social and Behavioral Sciences, Psychology, MA

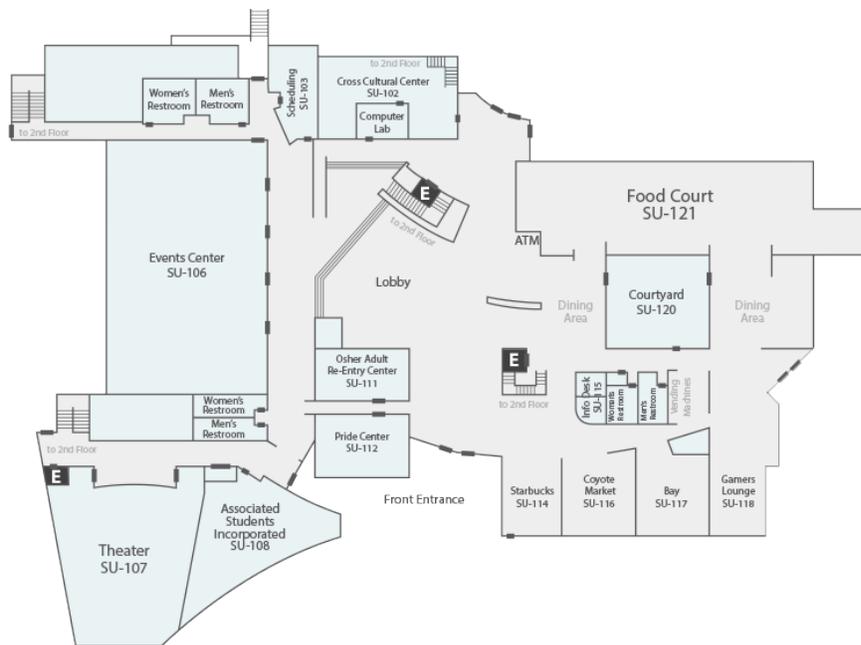
Faculty Sponsor: Dr. Hideya Koshino

Title: The Effects of Perceptual Load on a Simon Task

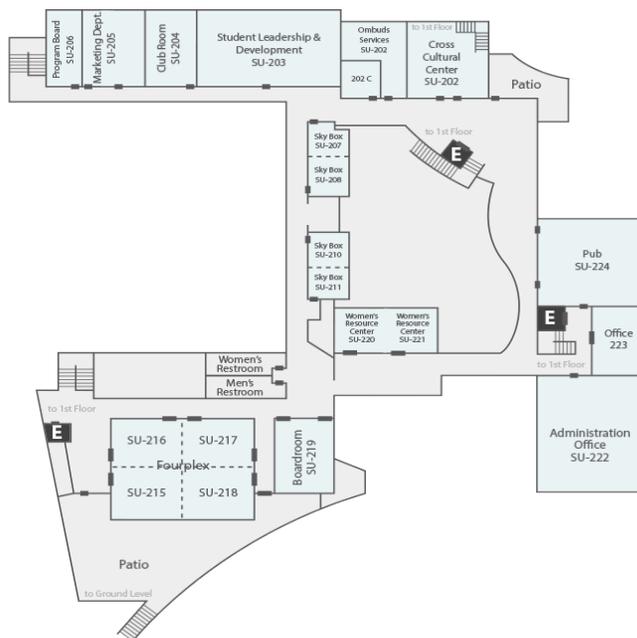
Abstract: Perceptual load (PL) hypothesis claims that PL is the determining factors of attentional selection. When PL is high, attentional resources are exhausted to process stimuli, resulting in no compatibility effect. When PL is low, attentional resources spill over to process a response-related distractor, resulting in a compatibility effect. A question is whether or not the PL effect can be generalized to other types of interference tasks, such as the Simon task. The Simon effect refers to the finding that reaction times are typically shorter when the stimulus location and response location are

compatible than when they are incompatible, even if the stimulus location is irrelevant. Therefore, if PL has effects in the Simon task, then we expect a compatibility effect for low PL condition but not for the high PL condition. Participants performed the Simon task with three levels for the factor of PL (No PL, Low PL, and High PL). In the No PL condition, a target letter is presented alone; therefore, this is a typical Simon task. In the Low PL condition, three Os were presented as distractors. In the High PL condition, three distractors were heterogeneous. There were significant compatibility effects for the No PL and Low PL conditions; however, there was no compatibility effect for the High PL condition. The results supported our prediction that PL has a role in attentional selection in the Simon task. The results are also consistent with the attention-shift account of the Simon effect.

First Floor



Second Floor



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