



**6TH ANNUAL
GRADUATE RESEARCH AND CREATIVE
ACTIVITIES SYMPOSIUM**

***PROCEEDINGS
OF THE
2014 SYMPOSIUM***

Thursday, May 1, 2014

Sponsored by:

**California State University, Fresno
Division of Graduate Studies
Doctoral Program in Educational Leadership
Doctoral Program in Physical Therapy
Henry Madden Library**



CENTRAL CALIFORNIA GRADUATE RESEARCH AND CREATIVE ACTIVITIES SYMPOSIUM



California State University, Fresno



California State University, Fresno
Division of Graduate Studies

WELCOME

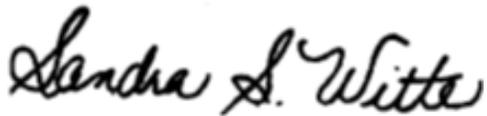
May 1, 2014

Dear Symposium Participants:

It is our pleasure to welcome you to the sixth annual Graduate Research and Creative Activities Symposium. The week of April 28-May 2, 2014 has been set aside by the Division of Graduate Studies for special recognition of our 2,000 master's and doctoral degree-seeking graduate students. This symposium provides an opportunity for our graduate students to express their ideas and to showcase their accomplishments. Their work is not only creating new knowledge, it is establishing the foundation for the next generation of graduate students who will become contributors to cutting edge information for the future.

Thank you for participating in today's event. We invite you to engage the participants in thoughtful dialogue and to discover new information that will strengthen the impact of today's contributions within our disciplines, our universities and our community.

Sincerely,

A handwritten signature in black ink that reads "Sandra S. Witte". The signature is written in a cursive style with a large initial 'S'.

Sandra Witte, PhD
California State University, Fresno

Program Agenda

| | |
|------------------|--|
| 1:00 – 1:15 p.m. | Welcome, Set up |
| 1:15 – 2:15 p.m. | Session I: Poster, oral, and creative activities presentations |
| 2:15 – 2:30 p.m. | Break/Set-up |
| 2:30 – 3:30 p.m. | Session II: Poster, oral, and creative activities presentations |
| 3:30 – 3:45 p.m. | Break/Set-up |
| 3:45 – 4:45 p.m. | Session III: Poster, oral, creative activities presentations, and doctoral student presentations |
| 4:45 – 5:30 p.m. | Reception, remarks by Graduate Dean Sandra Witte, |
| 5:30 – 8:00 p.m. | Session IV: Doctoral student presentations |

Table of Contents

| | |
|---|----|
| Oral/Paper Presentations. | 1 |
| Doctoral Student Presentations | 7 |
| Doctoral Student Abstracts | 12 |
| Poster Presentations | 24 |
| Students by Alphabetical Order | 30 |
| Map of Meeting Rooms/Presentations. | 34 |

Oral Presentations: Session I - 1:15-2:15 p.m.

Oral Presentations: Session I - 1:15-2:15 p.m.

HML Rm: 2108

- 1:15 p.m. Miller, Nathan: Civil Engineering
Mechanical Properties of Rubberized Lightweight Aggregate Concrete
Faculty Advisor: Dr. Fariborz Tehrani
- 1:30 p.m. Valencia Navarro, Laura: Electrical & Comp Engineering
Use of Synchrophasors for Fault Area Detection and Monitoring -- A New Scheme
Faculty Advisor: Dr. Dr. Ulrike K. Muller
- 1:45 p.m. Goyal, Aastha: Civil Engineering
Propagation of plasticity of slender flexural steel members
Faculty Advisor: Dr. Fariborz Tehrani
- 2:00 p.m. Soto, Adam: Civil Engineering
Investigation of Crack Propagation in Steel and Concrete Composite Beams Using Fiber Reinforcement
Faculty Advisor: Dr. Fariborz Tehrani

Oral Presentations: Session I - 1:15-2:15 p.m.

HML Rm: 2119 (Graduate Writing Studio)

- 1:15 p.m. Sturla, Jarred: Plant Science
Estimating Nitrogen Fixation of Alfalfa Using the Natural Abundance Method
Faculty Advisor: Dr. Bruce Roberts
- 1:30 p.m. Pokorny, Andrew: Plant Science
A Survey of Fungicide Resistance in Botrytis Cinerea on Strawberries in California
Faculty Advisor: Dr. Anil Shrestha
- 1:45 p.m. Mahal, Navreet: Plant Science
Nitrous Oxide Emission Factors for Cotton in California
Faculty Advisor: Dr. Dave Goorahoo
- 2:00 p.m. Clark, Nicholas: Plant Science
Exploring factors associated with plant pathogen enrichment in planta
Faculty Advisor: Dr. John Bushoven

Oral Presentations: Session I - 1:15-2:15 p.m.

HML Rm: 2127 (Studio 2)

- 1:15 p.m.
- 1:30 p.m. Martinez, Antonia: Food Science and Nutrition
Watching a Nutrition Professional on Food-Related Television Programming
Faculty Advisor: Dr. Klaus Tenbergen
- 1:45 p.m. Wei, Ran: Industrial Technology
The economy impact of Jordan Research Center construction in Fresno County
Faculty Advisor: Dr. Pei Xu
- 2:00 p.m. Zhao, Xiaofan: Viticulture and Enology
Influence of foliar potassium applications on quality of table grapes
Faculty Advisor: Dr. Sonet Van Zyl

Oral Presentations: Session I - 1:15-2:15 p.m.

HML Rm: 2134 (Studio 2)

- 1:15 p.m. Boniface, Katrin: History
Horses in Medieval Society
Faculty Advisor: Dr. Mark Arvanigian
- 1:30 p.m. Bell, Greta: History
Hoopskirts and Controversy: Enlightenment Ideology in Eighteenth-Century Fashion Discourse
Faculty Advisor: Dr. Maritere Lopez
- 1:45 p.m. Jones, Alexandra: History
Classics and Southern Secessionists
Faculty Advisor: Dr. Ethan Kytle

Oral Presentations: Session I - 1:15-2:15 p.m.

HML Rm: 3212

- 1:15 p.m. Olea, Catalina: Chemistry
Emissions of VOCs and Methane from a Central California Dairy
Faculty Advisor: Dr. Alam Hasson
- 1:30 p.m. Alawdi, Hafez: Chemistry
The Determination of The Electrochemical Heterogeneous Rate Constants of Gold Nanoparticles with Different Alkanethiolate Ligands
Faculty Advisor: Dr. Jai-Pil Choi
- 1:45 p.m. Reid, Korey: Chemistry
Phe-Phe interactions in intrinsically disordered proteins from yeast nucleoporins.
Faculty Advisor: Dr. Krish Krishnan

Oral Presentations: Session II - 2:30-3:30 p.m.

Oral Presentations: Session II - 2:30-3:30 p.m.

HML Rm: 2108

- 2:30 p.m. Cortes, Lynette: Mathematics
Schnirelmann's Approach to the Goldbach Problem
Faculty Advisor: Dr. Stefaan Delcroix
- 2:45 p.m. Urabe, Katherine: Mathematics
On the Dubrovnik polynomial of rational knots
Faculty Advisor: Dr. Carmen Caprau
- 3:00 p.m. Willis, Karen: Mathematics
Blocking Polygons in Finite Projective Planes
Faculty Advisor: Dr. Oscar Vega
- 3:15 p.m. Kuneli, Megan: Mathematics
Spreads and Parallelisms
Faculty Advisor: Dr. Oscar Vega
- 3:15 p.m. Bautista, Elda: Mathematics
Preconditioned Multigrid
Faculty Advisor: Dr. Doreen De Leon

Oral Presentations: Session II - 2:30-3:30 p.m.

HML Rm: 2119 (Graduate Writing Studio)

- 2:30 p.m. Ausmus, Brandon: Physics
Introduction to Fresno State's ATLAS program at CERN in Geneva Switzerland
Faculty Advisor: Dr. Yongsheng Gao
- 2:45 p.m. Griffiths, Kyle: Biology
Will largemouth bass hinder salmon restoration in the San Joaquin?
Faculty Advisor: Dr. Steven Blumenshine

Oral Presentations: Session II - 2:30-3:30 p.m.

HML Rm: 2127 (Studio 2)

- 2:30 p.m. Melvin, Ryan: Computer Science
Simulator for Wireless Body Area Networks (WBANs)
Faculty Advisor: Dr. Ming Li
- 2:45 p.m. Maddini, Dheeraj: Computer Science
Novel routing principle using hash table -preventing DoS attacks
Faculty Advisor: Dr. Alex Shih-His Liu
- 3:00 p.m. Arunachalam Thayappan, Krish: Computer Science
Knowledge Discovery Through Sentiment Analysis on BIG Data
Faculty Advisor: Dr. Alex Shih-His Liu

Oral Presentations: Session II - 2:30-3:30 p.m.

HML Rm: 2134 (Studio 2)

- 2:30 p.m. Meija, Nadine: Social Work
Army National Guard Female Veterans' Experiences While Deployed
Faculty Advisor: Dr. Martha Vungkhanching
- 2:45 p.m. Kenerly, Liz: Social Work
Implementation of Distress Screening Tool in Regional Outpatient Cancer Facility
Faculty Advisor: Dr. Martha Vungkhanching
- 3:00 p.m. Kenerly, Liz: Social Work
Participation of Cancer Caregivers in Psychosocial Research
Faculty Advisor: Dr. Martha Vungkhanching
- 3:15 p.m. Bates, Regina: Social Work
An Exploratory Study of the Experiences of Young Adults with Bipolar Disorder
Faculty Advisor: Dr. Kris Clarke
- 3:15 p.m. Brownstein, Jeremy: Social Work
An Exploratory Study Of Horticultural Therapeutic Community Gardens In Fresno County
Faculty Advisor: Dr. Kris Clarke

Oral Presentations: Session II - 2:30-3:30 p.m.

HML Rm: 3212

- 2:30 p.m. Contrestano, Katherine: Kinesiology
Athletic Identity, Team Roles, and Reasons for Continued Sport Involvement
Faculty Advisor: Dr. Jenelle Gilbert
- 2:45 p.m. Monreal, Christina: Kinesiology
Effects of sport psychology on adherence, pain, and rehabilitation satisfaction
Faculty Advisor: Dr. Dawn Lewis
- 3:00 p.m. Milius, Inge: Kinesiology
Profile and Meaning of P-touch in Collegiate Women's Basketball: A Case Study
Faculty Advisor: Dr. Wade Gilbert
- 3:15 p.m. Clifton, Alexandra: Kinesiology
Resources available to assist NCAA student-athletes with sport retirement
Faculty Advisor: Dr. Jenelle Gilbert

Oral Presentations: Session III - 3:45-4:45 p.m.

Oral Presentations: Session III - 3:45-4:45 p.m.

HML Rm: 2108

- 3:45 p.m. Goonawardena, Chathurika: Public Health
Anxiety or Depression on Academic Performance Among Fresno State Students
Faculty Advisor: Dr. Kara Zografos
- 4:00 p.m. Ferguson, Alyse: Communicative Disorders and Deaf Studies
Phonemic Awareness Instruction in the Remediation of Phonological Deletion Processes
Faculty Advisor: Dr. Christine Maul
- 4:15 p.m. Weathers, Aaron: Communication
"Passing" the college public speaking course
Faculty Advisor: Dr. Shane Moreman

Oral Presentations: Session III - 3:45-4:45 p.m.

HML Rm: 2119 (Graduate Writing Studio)

- 3:45 p.m. Balkun, Stacey: Creative Writing
Ekphrasis: Writing Poetry to Discover Truth in Surrealist Paintings
Faculty Advisor: Dr. Connie Hales
- 3:57 p.m. Gray, Michael: Creative Writing
Untangling the Grim Web: Women's Hair as Rhetorical Space on the Victorian Dramatic Monologue
Faculty Advisor: Dr. Ruth Jenkins
- 4:09 p.m. Wood, Shane: English Composition Theory
The Writing Program and Conventions of Failure
Faculty Advisor: Dr. Asao Inoue
- 4:21 p.m. Meroney, Samantha: English Literature
Marlowe's Dr. Faustus Creatively Retold
Faculty Advisor: Dr. Toni Wein
- 4:33 p.m. Yeargan, Alyse: English Literature
The Kids Are [Not] Alright: Systematic Denial of Legacy
Faculty Advisor: Dr. John Beynon

Oral Presentations: Session III - 3:45-4:45 p.m.

HML Rm: 2127 (Studio 2)

- 3:45 p.m. Gorman, Kathryn: Linguistics
L1 Influence on Adult L2 Learners' Attention to English Articles
Faculty Advisor: Dr. Sean Fulop
- 4:00 p.m. Lopez Vega, Jovana: Spanish
El reflejo de Sor Juana a través del espejo del sincretismo novohispano
Faculty Advisor: Dr. Yolanda Doub
- 4:15 p.m. Garcia, Ibeth: Spanish
La mujer mexicana no engendra por naturaleza una máscara; a ella se le impone
Faculty Advisor: Dr. Yolanda Doub
- 4:30 p.m. De La Cruz, Lizbeth: Spanish
Latin American Testimony: Francisco Manzano's complex identity and double consciousness
Faculty Advisor: Dr. Yolanda Doub

Oral Presentations: Session III - 3:45-4:45 p.m.

HML Rm: 2134 (Studio 2)

- 3:45 p.m. Marquez, Belen: Counseling-Higher Education
First Year Housing Communities and Effectiveness on College Student Adjustment
Faculty Advisor: Dr. Marinn Pierce
- 4:00 p.m. Furst, Jeanna: Business Administration
The Concept of Flow in Consumer Behavior Related to Social Media: An Empirical Study
Faculty Advisor: Dr. Susan Geringer
- 4:15 p.m. Kralowec, Charles: Psychology
Measurement invariance of the Rosenberg self-esteem scale for adolescents
Faculty Advisor: Dr. Ronal Yockey

Oral Presentations: Session III - 3:45-4:45 p.m.

HML Rm: 3212

- 3:45 p.m. Escobar, Kurt: Kinesiology
Effect of CHO-intake on CrossFit performance, metabolic/physiological demands and responses
Faculty Advisor: Dr. Jacobo Morales
- 4:00 p.m. Atchley, Rebecca: Kinesiology
A Long-Term Athlete Development Model for Swimming
Faculty Advisor: Dr. Wade Gilbert
- 4:15 p.m. Mallory, Chris: Kinesiology
A Long-Term Athlete Development Model for Baseball
Faculty Advisor: Dr. Wade Gilbert

4:45-5:30 p.m. Reception

Oral Presentations: Session IV - 5:30-8:00 p.m.

Oral Presentations: Session IV - 5:30-6:15 p.m.

HML Rm: 2108

- 5:30 p.m. Reyes, Jose: Ed.D Educational Leadership
An Examination of Social Deficits and Recommended Practices for Individuals Historically Diagnosed with Asperger's Syndrome
Faculty Advisor: Dr. Susan Tracz
- 5:50 p.m. Droker, Stephanie: Ed.D Educational Leadership
An Examinatin of Faculty and Administrator Collaboration Across Institutions in a Community College Consortium
Faculty Advisor: Dr. Susan Tracz
- 6:10 p.m. Barker, Nan: Ed.D Educational Leadership
California Students Who are Deaf /Hard of Hearing : Cross-Sectional Analysis
Faculty Advisor: Dr. Susan Tracz
- 6:30 p.m. Anderson, Mary Estelle: Ed.D Educational Leadership
Projecting Student Enrollment: A Comparative Study of Three Forecasting Models
Faculty Advisor: Dr. Susan Tracz
- 6:50 p.m. Ramirez, Susana: Ed.D Educational Leadership
An investigation of the relationship between school leader cultural competency and English Language Learner (ELL) academic success
Faculty Advisor: Dr. Susan Tracz
- 7:10 p.m. Allison, Timothy: Ed.D Educational Leadership
Building Capacity for Behavioral Intervention Plan development.
Faculty Advisor: Dr. Colleen Torgerson
- 7:30 p.m. Loete, Cari: Ed.D Educational Leadership
Data Collection and Progress Monitoring in Special Education
Faculty Advisor: Dr. Colleen Torgerson
- 7:50 p.m. Rodriguez, Sabrina: Ed.D Educational Leadership
An Investigation Into the Use of Student Voice in public Secondary Schools Across America
Faculty Advisor: Dr. Sharon Brown-Welty

Oral Presentations: Session IV - 5:30-8:00 p.m.

HML Rm: 2119 (Graduate Writing Studio)

- 5:30 p.m. Reynoso, Bernardo: Education: Educational Leadership and Administration
Latino Males: A Critical Focus for TRiO Upward Bound Programs
Faculty Advisor: Dr. Susana Hernandez
- 5:50 p.m. Sifuentez, Brenda: Education: Educational Leadership and Administration
An Understanding of Cultural Competency within the Division of Student Affairs
Faculty Advisor: Dr. Susana Hernandez
- 6:10 p.m. Yager, Laura: Education: Educational Leadership and Administration
An Examination of Housing and Advising Professionals' Preparedness to Serve Students with Mental Health Issues
Faculty Advisor: Dr. Susana Hernandez
- 6:30 p.m. Miller, Holly: Nursing
Incidence and Prevalence of Type 1 Diabetes in the Central Valley: 2005-2013
Faculty Advisor: Dr. Mary Barakzai

Oral Presentations: Session IV - 5:30-8:00 p.m.

HML Rm: 2127 (Studio 2)

- 5:30 p.m. Bizer-Hansen, Lisa: Ed.D Educational Leadership
Learning-Oriented Feedback: Pedagogy of Engagement and Contingency
Faculty Advisor: Dr. Sharon Brown-Welty
- 5:50 p.m. Rosas, Rene: Ed.D Educational Leadership
Elementary School Teachers' and Principals' Formative Assessment Beliefs, Practices, and Assessment Literacy
Faculty Advisor: Dr. Sharon Brown-Welty
- 6:10 p.m. Caldwell, Jeremy: Ed.D Educational Leadership
Adjustment: A Case of Saudi Arabian Students in the CSU
Faculty Advisor: Dr. Kenneth Magdaleno
- 6:30 p.m. Brubaker, Lurena: Ed.D Educational Leadership
Proficiency Based Teaching and Learning Educational Model and Student Achievement
Faculty Advisor: Dr. Kenneth Magdaleno
- 6:50 p.m. Suleiman, Hana: Ed.D Educational Leadership
The Role of Leadership in a Performance-Based System
Faculty Advisor: Dr. Donald Wise
- 7:10 p.m. MacQuarrie, Becky: Ed.D Educational Leadership
Teacher self-efficacy and teachers' collective efficacy in a performance-based system
Faculty Advisor: Dr. Donald Wise
- 7:30 p.m. Lopez, Paul: Ed.D Educational Leadership
Leading Change for the Implementation of the Common Core Standards
Faculty Advisor: Dr. Donald Wise
- 7:50 p.m. Cavazos, Blanca: Ed.D Educational Leadership
Does Do The Math affect mathematics self-efficacy and achievement?
Faculty Advisor: Dr. Donald Wise
- 8:10 p.m. Gutierrez, Daniel: Ed.D Educational Leadership
Latino Male Students' Decision to Study Abroad: The Role of Faculty and Parents
Faculty Advisor: Dr.-Juan Carlos Gonzalez

Oral Presentations: Session IV - 5:30-8:00 p.m.

HML Rm: 2134 (Studio 2)

- 5:30 p.m. Cohrs, Merriellen: Ed.D Educational Leadership
An Examination of the Critical Components and Efficacy of PLCs
Faculty Advisor: Dr. Debra Harris
- 5:50 p.m. Rizzo, Sophia: Ed.D Educational Leadership
Mexican Immigrant Fathers and the College Choice Process of their Children
Faculty Advisor: Dr. Juan Carlos Gonzalez
- 6:10 p.m. Thornburgh, James: Ed.D Educational Leadership
A study of education and KSAOs on career entry for product engineers: What employers really want
Faculty Advisor: Dr. Julie Olsen-Buchanan
- 6:30 p.m. Grace, Lori: Ed.D Educational Leadership
Instructional Rounds and Collective Efficacy in the Rural Central Valley School Districts
Faculty Advisor: Dr. Linda Hauser
- 6:50 p.m. McGee, Dean: Ed.D Educational Leadership
Influence of Extrinsic Motivation on Student Performance on Large-Scale Assessments
Faculty Advisor: Dr. Jason Immekus
- 7:10 p.m. Cooper, Donna: Ed.D Educational Leadership
Embedded Remediation in Community College Career Technical Education: Promising Practices
Faculty Advisor: Dr. Diane Oliver
- 7:30 p.m. Boesch, Julie: Ed.D Educational Leadership
Expanded Learning (Afterschool) Leaders' Perceptions Regarding Most Important Elements for Program Quality and Use of Self-Assessment Tools for Continuous Improvement
Faculty Advisor: Dr. Linda Hauser
- 7:50 p.m. Ayala, Daniel: Ed.D Educational Leadership
Identifying Non-Graduating Students before Departure: Linking Secondary Institutional Characteristics and Postsecondary Achievement to Attrition After the Second Year
Faculty Advisor: Dr. Sharon Brown-Welty
- 8:10 p.m. Tenhet, Troy: Ed.D Educational Leadership
Relationship Between Tablet Computing and Student Engagement, Self-Efficacy, and Attitude Toward Learning
Faculty Advisor: Dr. Sharon Brown-Welty

Oral Presentations: Session IV - 5:30-8:00 p.m.
HML Rm: 3212

- 5:30 p.m. Aliotti, Ashley: DPT Physical Therapy
The Effects of Acute Air Pollution on the Cardiopulmonary System of Cyclists
Faculty Advisor: Dr. Harshavardhan Deoghare
- 5:50 p.m. Chan, Barbara: DPT Physical Therapy
Electromyographic analysis of core muscle activation during lumbar stabilization exercises: implications for rehabilitation and training
Faculty Advisor: Dr. Harshavardhan Deoghare
- 6:10 p.m. Person, Brittany: DPT Physical Therapy
Real-Time Quantification of Stress in Nursing Students during a High-fidelity Human Simulation
Faculty Advisor: Dr. Harshavardhan Deoghare
- 6:30 p.m. Voelz, Kimberley: DPT Physical Therapy
Novel treatment Paradigms for Patients with Upper Motor Neuron Dysfunction
Faculty Advisor: Dr. Peggy Trueblood
- 6:50 p.m. Alkan, Hatice: DPT Physical Therapy
Effectiveness of structured exercise program vs home exercise program
Faculty Advisor: Dr. Marcia Thompson

Doctoral Program in Educational Leadership

Building Capacity for Behavioral Intervention Plan development.

Allison, Timothy

With the passage of Assembly Bill 86, the requirement that highly trained professionals are required to develop behavioral intervention plans (BIPs) for at-risk youth has been waived. State superintendents are now authorized to decide which level of credentialed professional is qualified enough to develop these plans going forward. Research will show that a vast majority of the BIPs that are developed in actual practice have been rated, by research-based instruments (Browning-Wright, et al. 2006), as inadequate, missing key evidence-based components and potentially legally invalid due to substantive and procedural violations (Cook, et al. 2007) putting districts at risk and highlighting a need for capacity building of professionals in writing high quality plans. This study examined the effects of professional development training on a high school treatment group's ability to significantly improve current BIPs from the same plans developed prior to the intervention. Based on the results of the training, the treatment group's scores significantly increased from the pre-test to the post-test, and the increase was significantly different than the change of scores at the statistically similar high school setting's plans, which did not receive any interventions. While growth was made due to the interventions used in the study, limitations of the intensity of the intervention reduced the impact it might have had. At the conclusion of the study, nearly half of the plans at the treatment group were still rated as inadequate. Future research would have an opportunity to develop more intensive in-services a longer treatment periods to study the impact it had on a setting.

Projecting Student Enrollment: A Comparative Study of Three Forecasting Models

Anderson, Mary Estelle

Enrollment projections are vital for decision making in public education institutions. As public schools and districts across California are preparing their Local Control and Accountability Plans which tie directly to future apportionment allocated according to the newly adopted Local Control Funding Formula, estimations of future student population size, demographic composition, and enrollment patterns provide invaluable data for planning future resource allocation. The most commonly used methods for calculating enrollment projections are variations on Cohort Survival Rate models and have changed little in recent decades, despite improvements in the collection of student information and increased sophistication of data management. This study was designed to determine the most accurate method for calculating a series of monthly enrollment forecasts among two commonly used enrollment projection methods, Cohort Survival Rate and Linear Trend Analysis, and a third experimental Student-Level Migration Regression model. Four types of error were compared, and results showed that while the Cohort Survival Rate and Linear Trend Analysis were comparable for forecasting school and grade level aggregate populations, the experimental Student-Level Migration Regression model proved to be more accurate in forecasting enrollment for student subpopulation enrollment, including Special Education, English Learners, Foster and homeless students.

Identifying Non-Graduating Students before Departure: Linking Secondary Institutional Characteristics and Postsecondary Achievement to Attrition after the Second Year

Ayala, Daniel

This study sought to develop a predictive model of undergraduate degree non-completion, using institutional-level secondary characteristics and individual-level postsecondary achievement data to predict non-graduating students' year of departure. Multiple linear regression, factor analysis, and discriminant function analysis were used to predict academic year of departure using longitudinal data of a cohort beginning college in the fall 2007 academic term. It was determined that the majority of attrition could be assigned to a year of departure using data available by the end of a student's third academic term.

California Students Who are Deaf /Hard of Hearing : Cross-Sectional Analysis

Barker, Nan

Students who are deaf or hard of hearing (SDHH) have unique educational needs and are served in numerous education settings throughout California, with a variety specialized services, equipment, and materials. The variability of individual students within the larger group of SDHH confounds research aiming to measure the effectiveness of teaching and learning. A description of SDHH in California, based on statewide data was needed to understand the conditions and experiences of SDHH. This study was a concurrent mixed methods study framed with a pragmatic theoretical base. Cross-sectional descriptive study of data for SDHH and semi-structured interview of professionals in the field were used to describe the conditions and experiences of SDHH served in California in 2012/2013. The expected incidence rate of less than one percent of the total statewide enrollment for SDHH impacts the accessibility of student level data and the limited number of SDHH in one location also affects programmatic planning for leaders in the field of Deaf education. General education administrators on school sites with access to data for their students do not have expertise in addressing the educational needs of SDHH and administrators for programs serving SDHH at a variety of school sites do not have access to individual level data. The use of academic achievement data to drive instruction for SDHH is extremely limited due to data management systems and participation levels in statewide assessments. The heterogeneity of SDHH and the known variability within same age groups support the need for further descriptive study.

Learning-Oriented Feedback: Pedagogy of Engagement and Contingency

Bizer-Hansen, Lisa

The purpose of this study is to investigate the learning-oriented feedback process as an instructional approach for 21st Century classrooms and to determine what relationships exist between specific attributes of the feedback process and teacher awareness, efficacy and implementation for third and fourth grade classrooms in the state of California. The study also seeks to determine the extent teachers perceive specific attributes of the feedback process as contingent to promoting student learning. This study further examines the differences between teacher self-assessed use of feedback during the instructional process and actual observable behavior in the classroom. Through an enhanced understanding of the learning-oriented feedback process as an instructional foundation and the transition to Common Core California State Standards, educators have an opportunity to employ instructional practices steeped in research to foster 21st Century learning. This study has the potential to provide information to facilitate education reform that differs from previous efforts and offers a fresh approach to teaching and learning. Recommendations for professional development and ideas for teacher self-reflection protocols are provided and are compatible with the transition to Common Core California State Standards and 21st Century instructional demands. Therefore, the significance of this study aspires not only to advance our theoretical understanding of how teachers could incorporate attributes of the learning-oriented formative feedback process during instruction, but also in the application of its findings to classroom practices and instructional policies.

Expanded Learning (Afterschool) Leaders' Perceptions Regarding Most Important Elements for Program Quality and Use of Self-Assessment Tools for Continuous Improvement

Boesch, Julie

Social ecological perspectives of criminology have taken a multi-faceted approach to understanding the neighborhood conditions that lead to offending. Studies have shown that (a) neighborhood economic disadvantage, along with (b) firearms availability may be predictors for crime. We hypothesized that the level of homicides and assaults in neighborhoods may be determined by conditions including the carry of illegal firearms. Using census and law enforcement data, the socioeconomic and demographic factors of neighborhoods in Fresno were analyzed in conjunction with homicides and aggravated assaults for 2013. The findings reveal that community-level disadvantage may have a direct relationship with violent crime.

Proficiency Based Teaching and Learning Educational Model and Student Achievement

Brubaker, Lurena

This study investigated whether Proficiency Based Teaching and Learning (PBTL) educational model demonstrated sustained increases in student achievement, beyond the levels of performance shown by three State of Oregon high schools in a prior research study that examined the effectiveness of PBTL training conducted by Business Educational Compact – the only State of Oregon approved trainers of PBTL. Performance levels were measured over a four year period, using English Language Arts and Mathematics content areas and as determined by the Oregon Assessments of Knowledge and Skills (OAKS) yearly student achievement test. The study also sought to determine if parallel improvements in teacher knowledge and implementation of PBTL practices were sustained over the same time period. This was obtained through an examination of the effects of professional development and coaching in district schools embedded within a comprehensive process of educational reform and paradigm shift into the educational model of PBTL for the implementation of the Common Core State Standards. PBTL seeks to change academic instructional practices from the traditional time-bound, homework, and daily work-driven metrics to the mastery of instructional objectives while accommodating individualized pathways and time schedules. The choice of conducting this research in Oregon was arrived at after a review of the research literature on the evolution of Bloom's original instructional theory of Mastery Learning (1971) into its contemporary research-based form – the instructional model of PBTL. Oregon is one of four states that have implemented clear, statewide policies to redesign their education systems in order to support PBTL.

Does Do The Math affect mathematics self-efficacy and achievement?

Cavazos, Blanca

The long-term athlete development (LTAD) model is an eight staged development model that focuses on lifelong, healthy physical activity. This model gives the best chance to reach one's optimal sport performance potential if the individual has the talent and drive (Balyi, Way, & Higgs, 2013). LTAD focuses on the physical, mental, cognitive and emotional development of children and adolescence. LTAD has been implemented in various countries around the world, but is not yet the standard across all sports. Thus, the purpose of this project is to create an athlete development guide for baseball based on published resources (i.e. books, DVDs, websites, and articles) as well as the author's personal experience as a baseball player. This guide provides 1) a general overview of long-term athlete development and its stages of development with checklists for moving on to the next development stage for baseball, 2) detailed training information on stages 4-5 (ages 12-18) with application to baseball, and 3) recommendations that may assist coaches, parents, and sport administrators on how to implement training information.

Adjustment: A Case of Saudi Arabian Students in the CSU

Caldwell, Jeremy

This study was conducted to better understand and serve Saudi Arabian students studying in the CSU system. This mixed method study integrated both quantitative and qualitative methods. A modified version of the Michigan International Student Problem Inventory was utilized at 10 campuses in the CSU to determine the adjustment problems of Saudi Arabian students. Invitations were sent by email to 1,141 Saudi Arabian students, and 245 participants completed the inventory. Additionally, 31 participants from five CSU campuses participated in 60 to 90 minute focus group sessions. The purpose of the focus group sessions was to gain an in depth understanding of the experiences and challenges of these students. The results of the study found that although Saudi Arabian students were generally satisfied with their lives in California, that they encountered adjustment problems after arriving. The findings revealed that they experienced challenges with admissions, homesickness, friendships with Americans, living and dining, English, and with discrimination. Additionally, the study found that while many of the institutions in the CSU system provided services that helped Saudi students with their adjustment, these students expressed the need for more help from their respective institutions.

An Examination of the Critical Components and Efficacy of PLCs

Cohrs, Merriellen

The movement of reform has been a part of the field of education since the change to an urbanized society. The look of the reform has swung like a pendulum as programs and expectations have changed. The introduction of Professional Learning Communities has seemed to be one program that has remained intact as was originally intended. Studies have shown that when the efficacy of the educational staff is high, achievement has seen to increase. The purpose of this study was to explore whether there was a correlation between student achievement scores, teacher, administrator, and Professional Learning Communities efficacy at a school site. Correlations to achievement scores and efficacy were evaluated using a mixed methods research approach by examining the data from the efficacy scales, comments provided by respondents, and the achievement scores for each responding school. There was a correlation found between teacher efficacy and achievement scores.

Embedded Remediation in Community College Career Technical Education: Promising Practices

Cooper, Donna

In 2012, a consortium of California community colleges received a Trade Adjustment Assistance Community College and Career Training Grant from the U. S. Department of Labor to improve student outcomes and address postsecondary educational needs of an economically distressed area where unemployment hovers around 19%. The consortium adopted eight guiding principles to inform their work within designated Career Technical Education pathways. The purpose of this research study was to explore the implementation of one of the eight guiding principles; embedded remediation. The study used a qualitative, multi-case study method to discover promising practices, and was guided by five research questions: How can embedded remediation at each case study community college be characterized and how did the implementation evolve? How are faculty trained to embed remediation? How do students perceive embedded remediation in relation to their learning? How do faculty members perceive that the implementation of embedded remediation has affected student learning, completion and preparation for employment? What recommendations do faculty members have for embedding remediation in CTE programs? Several themes emerged during the study such as the importance of on-going communication among faculty, with the institution and with students; the use of trained tutors to provide supplemental learning both within and outside of the classroom setting; professional development for faculty to assist in the paradigm shift of classroom redesign; and collaborative learning for faculty and students. Based on the findings, promising practices were developed for redesigning vocational pathways that support student success.

An Examination of Faculty and Administrator Collaboration Across Institutions in a Community College Consortium

Droker, Stephanie

Higher education institutions are becoming increasingly responsible for securing additional funding in order to augment decreasing state and public financial support. At the same time, grant funders are requiring these institutions to demonstrate their capacity to leverage resources with partner agencies. Educational administrators need to develop grant proposals where project partners collaborate to complete project objectives. Essentially, educational administrators must create environments where effective collaboration can be realized. Therefore, the purpose of this study was to provide insight regarding factors affecting collaboration, including collective efficacy, organizational learning, and constructive conflict resolution, in a large community college consortium where an organizational team approach was taken to accomplish project goals. A mixed methods design was used to examine the relationships between collective efficacy, organizational learning, constructive conflict resolution, and faculty and administrator perceptions of project outcomes. Results of the study indicated that effective collaboration requires teams to internally develop processes and practices to define and acquire resources (organizational learning) and a strong group dynamic in which members believe they can achieve the defined goals (collective efficacy) in order to successfully meet objectives.

Instructional Rounds and Collective Efficacy in the Rural Central Valley School Districts

Grace, Lori

The purpose of this study is to investigate connections between collective efficacy and factors related to teacher/school involvement in the Instructional Rounds process. Specifically, this study will examine: (a) the relationship between factors of the Instructional Rounds process and collective efficacy, (b) differences between both the collective efficacy of teachers and number of years a school has been involved in Instructional Rounds and differences in the collective efficacy of teachers who have directly participated and those who have not directly participated in the Instructional Rounds process, (c) the main effects on collective efficacy for school type, duration of Instructional Rounds, and the interaction between both, and (d) the impact of the Instructional Rounds process on teaching and learning. A mixed methods approach was utilized. This study employed a QUAN – QUAL design in which quantitative and qualitative methods played an equally important role in addressing the research area of study (Creswell & Plano-Clark, 2007). The quantitative portion was employed as the researcher collected survey data from 187 teachers within districts that are members of the Executive Instructional Leadership Program for Rural Central Valley School Districts. Schools selected for this study were within districts that are members of the Executive Instructional Leadership Program for Rural Central Valley School Districts. Five school districts consisting of 12 schools were selected. The participating districts include four comprehensive high schools, three middle schools, and five elementary schools. The qualitative portion focused on the collective efficacy ratings of teachers working in schools that had participated in the Instructional Rounds process for no less than one year and more than three years. Ratings were compared to ratings on the Instructional Rounds Factors scale developed for this study. Results indicated collective efficacy ratings have a significant moderate correlation to Instructional Rounds factors. No significant difference was observed between the number of years a school had been engaged in Instructional Rounds and the collective efficacy ratings of teachers. Qualitative data involved six focus groups to determine the impact of instructional rounds on teaching and learning. Three themes emerged including: conscious planning and reflection on practice, observation of colleagues, and shared decision making.

Latino Male Students' Decision to Study Abroad: The Role of Faculty and Parents

Gutierrez, Daniel

(Abstract not available at time of printing)

Data Collection and Progress Monitoring in Special Education

Loete, Cari

The purpose of this study was to examine teacher perceptions about progress monitoring, to identify barriers to using data to inform instructional practices and program planning, and to make recommendations for improvement. Specifically, this study investigated perceptions about data use, resources and supports necessary, and data use practices. The study was conducted using an electronic survey that was distributed to 600 Central Valley special education teachers. The research study addressed four research questions: 1) What factors influence special educators use of data to monitor student progress?, 2) What are teacher perceptions about how they are prepared to collect, analyze, and utilize data for progress monitoring?, 3) How do teachers use data to drive instructional practices?, and 4) Are data collection and utilization practices and perceptions correlated with place of teacher training and/or place of employment? This study utilized a concurrent nested strategy where both quantitative and qualitative data were collected. The quantitative research consisted of a survey with Likert-type scale questions and the qualitative research was comprised of 15 phone interviews with randomly selected special education teachers and eight district administrators. These qualitative interviews allowed for participants to expand upon their experiences with data collection and progress monitoring in order for the researcher to study the barriers to data collection and progress monitoring as well as identify successful data collection strategies being used. Findings revealed that teachers perceive data collection and progress monitoring to be valuable tools in instructional decision-making. Two major themes emerged from the qualitative and quantitative analysis. Teachers identified barriers to effective data collection and progress monitoring to be time and training.

Leading Change for the Implementation of the Common Core Standards

Lopez, Paul

Purpose: The purpose of this study was to investigate the concerns of teachers and the perceived levels of use as they relate to the California Common Core State Standards (CaCCSS) in 13 California rural school districts. An additional intent of this study was to investigate the leadership approaches to lead the necessary change processes to take place for the CaCCSS. **Methods:** Evidence included 352 teacher responses and 36 administrator responses to Stages of Concern Questionnaire (SoC). Qualitative responses to questions relating to concerns and leadership approaches associated with CaCCSS implementation were also analyzed. **Findings:** Results from the SoC Questionnaire yielded mixed results with a general trend towards the highest relative intensity in the Informational and Personal stages of concern and lowest intensities in the Refocusing and Consequence stages. School leaders also expressed a range of leadership concerns and needs associated with CaCCSS implementation. **Implications:** These results suggest that teachers and education leaders are in the early stages of CaCCSS implementation and as a result will need time and resources including professional learning opportunities to meet the demands of CaCCSS.

Teacher self-efficacy and teachers' collective efficacy in a performance-based system

MacQuarrie, Becky

This dissertation is one part of four thematically linked dissertations which aimed to illustrate the intricacies of a performance-based system of education at three selected districts nationwide. The dissertations explored aspects of leadership, assessment, teacher self-efficacy, and instructional practices. The purpose of this study analyzed the relationship of PBS implementation and teacher self-efficacy and teachers' collective efficacy. A mixed-methods approach was utilized, including SPSS statistical analysis and qualitative examination. Each dissertation used a common survey, focus group and individual interviews, and classroom observation data to hone in on the key elements of a performance based system of education. All data were triangulated to ensure strength of reliability and focused interpretation of data towards findings regarding a PBS. General findings revealed that high PBS implementation correlated with high teacher self-efficacy and teachers' collective efficacy. It is recommended that high PBS implementation is first reached as quickly as possible with a small cadre of educators. Once the system is in place, and success is attained, the process should be implemented throughout an entire district with a fully devised structure in place in order to increase teacher self-efficacy and teachers' collective efficacy within the PBS system.

Influence of Extrinsic Motivation on Student Performance on Large-Scale Assessments

McGee, Dean

The purposes of this mixed method study were to examine the relationship between student motivation and performance on large-scale, low- and high-stakes examinations and identify the types of incentive programs used by principals to promote test performance among high school students. The study took place in California's Southern San Joaquin Valley and was situated in a large high school district with an enrollment of 37,070 students. A total of 5,245 10th-grade students were included in the study after completing the mandated state assessments in the spring of 2013. The qualitative findings for this study indicated that principals believed that students do not always put their best efforts forward when taking mandated exams; incentives are motivational for students; some teachers support the use of incentives for test-taking effort; more data should be used by school leaders to make decisions about incentive use; and incentive programs require financial and human resources that are difficult to provide. The quantitative findings of this study indicated that student performance on low- and high-stakes assessments is significantly correlated to test-taking effort. The study revealed that schools with performance-based incentive programs demonstrated greater growth in API scores than non-incentive schools and performance-based incentives deployed were substantially different across the sample of school sites indicating that students may be motivated in a variety of ways.

An investigation of the relationship between school leader cultural competency and English Language Learner (ELL) academic success

Ramirez, Susana

Teachers face challenges to improve the instruction and student success of ELL students. By 2015, the U.S. Department of Education estimates one third of the United States student population will be second-language students (Sparks, 2009, p. ix). Despite the large percentage of ELL students in the state, many California public schools continue to fail to meet the educational needs of this student sub group. The growing number of ELL students and their persistent under-achievement has long-term implications for California's economy and public welfare systems. Districts need to build capacity in school leaders to better address the needs of diverse student populations and maximize student learning for ELLs. The purpose of the research is to:

- To describe and identify supports and professional development opportunities about cultural competency provided to large urban districts with high EL enrollments
- To explore and describe the best practices to support acquisition and gain knowledge of cultural competence strategies for district and school leaders who work with language minority students
- To describe cultural competence best practices exhibited by district and elementary school leaders who provide academic support to schools with high EL student populations for the purpose of improving student achievement

An Examination of Social Deficits and Recommended Practices for Individuals Historically Diagnosed with Asperger's Syndrome

Reyes, Jose

The purpose of this study is to examine the perceptions of psychologists in the field who work with individuals with AS, in particular, to determine academic skills through time, and to see if social communication deficits increase with AS students as they move through elementary, middle and high school. Lastly, the study also sought to determine what prevalent interventions have been implemented by school personnel and professionals in the field who have had a positive effect on individuals with Asperger's Syndrome. Determining effective interventions and best practices will provide needed assistance to individuals with AS and helps them achieve future success.

Mexican Immigrant Fathers and the College Choice Process of their Children

Rizzo, Sophia

The present study focuses on what can be discovered about the involvement of Mexican immigrant fathers in the college choice process of their children. Hossler and Gallagher's (1987) three-stage model of college choice, which is comprised of a predisposition, search, and choice phase, will guide the study. The study will utilize a qualitative design with semi-structured interviews in order to gauge a better understanding of the experiences of Mexican immigrant fathers in the college choice process of their children. Participants will be from the Central Valley area and have children who are currently enrolled as high school seniors or who have currently enrolled in or completed higher education. Individual face-to-face interviews with 7-12 participants will take approximately one hour to complete. Potential benefits include the contribution to the existing literature on the Mexican immigrant population by capturing the paternal voices. There are no potential risks anticipated to the potential participants in this qualitative research study. The protection of participants' identity is the researcher's highest priority. The information obtained for this study will remain confidential. The data and taped interviews will only be accessible to the researcher. Identifiable information will not be used on the surveys or interview transcripts.

An Investigation Into the Use of Student Voice in public Secondary Schools Across America

Rodriguez, Sabrina

(Abstract not available at time of printing)

Elementary School Teachers' and Principals' Formative Assessment Beliefs, Practices, and Assessment Literacy

Rosas, Rene

The purpose of this study was to investigate elementary teachers' and principals' formative assessment beliefs, practices, and assessment literacy. The study addressed the following questions:

1. Is there a significant difference on level of assessment literacy among teachers and principals?
2. Are there differences on level of assessment literacy, assessment beliefs, and assessment practices among teachers related to their years of experience (zero to 11 years and more than 11 years), grade level assignment (primary vs. intermediate), level of education, and intensity of assessment training?

Results showed a significant difference between teachers ($M=19.03$) and principals ($M=23.14$) on level of assessment literacy. In addition, significant differences on level of assessment literacy emerged in relation to teachers' years of experience, grade level assignment, level of education, and intensity of assessment training. Moreover, results revealed the need for more education and sustained professional development on assessment literacy among Central Valley educators.

The Role of Leadership in a Performance-Based System

Suleiman, Hana

This dissertation is one part of four thematically linked dissertations which aimed to illustrate the intricacies of a performance-based system of education at three selected districts nationwide. The dissertations explored aspects of leadership, assessment, teacher self-efficacy, and instructional practices. The purpose of this study was to investigate leadership factors and actions that may be related to the implementation of a performance-based system (PBS) and its sustainability. This thematically driven study investigated pertinent variables that affect leadership in PBS schools. This study utilized the mixed methods approach in data collection and analyses. The data was collected and analyzed from three sites across the United States in which PBS is being implemented. The primary goals of this study involved identifying key dispositions and factors of leadership that drive implementation and sustain such reform efforts. Specific areas of leadership have been explored including demonstrated actions of a shared vision, efforts to build capacity and distribute leadership, as well as the process of continuous improvement. The findings of this study revealed areas of strengths in balancing short and long term goals, developing collective meaning and commitment, and communicating a moral purpose. In addition, findings revealed areas of weakness in distributing leadership, providing professional development, and monitoring classrooms.

A study of education and KSAOs on career entry for product engineers: What employers really want,
Tenhet, Troy

The purpose of this research study was to examine the relationship between tablet computing in the classroom and student engagement. This study examined the 6th grader students' time with the tablets, student self-efficacy, and attitude toward learning as it impacts student engagement with the tablets. Additionally, the study looked at the relationship between student use of tablets and their attitude toward technology in the classroom-learning environment. The study encompassed 18 classrooms across California (N = 279) and the grade level was grade six. Through the use of a survey instrument from Moran, Hawkes and El Gayar (2010) that gathered information about gender, working computers at home, parent college experience, and time with the tablets, the researcher examined relationships between the tablet usage and engagement. Also, the instrument looked at performance expectancy, effort expectancy, student cognitive engagement, attitude toward the tablet technology, and student self-efficacy. This study is relevant because of the paradigm shift in education that includes a significant presence from tablet computing. Districts are currently spending millions of dollars on tablets for their classrooms. This study found that although students indicated high levels of efficacy and engagement, the survey indicated a relationship between tablets and efficacy or engagement that was not statistically significant. The study suggested that student engagement with the tablets does not equate automatically with academic engagement with the tablets. Future studies should perhaps look at tablets in their appropriate role as "helpers of collaboration." Future research designs should include qualitative focus groups and interviews of student tablet users.

A study of education and KSAOs on career entry for product engineers: What employers really want
Thornburgh, James

The purpose of the study is to investigate the ways that employers of product engineers evaluate potential employees' job readiness, and which theories related to the education-work transaction are supported by practice. The Theories in question represent business (Theory of Individual Differences), and sociology (Credentialing Theory) perspectives. These theories lie at opposite ends of a continuum from work rewards being linked to knowledge and skills acquired through education and training to credentials reflecting a status indicator rather than evidence of knowledge and skills. A mixed-methods approach, including a statewide survey and interviews from the local area, was taken to answer three research question: RQ1. Do the current hiring practices for product engineers support credentialing theory or the theory of individual differences? RQ2. Do the current hiring practices for product engineers vary between HR professionals, engineering managers, and executive managers with respect to the support of credentialing theory or the theory of individual differences? RQ3. Do employers use evidence-based measures to evaluate potential product engineers?

Joint Doctoral Program in Physical Therapy

The Effects of Acute Air Pollution on the Cardiopulmonary System of Cyclists

Aliotti, Ashley

Background and Purpose – Ambient air quality in Fresno, California has been an important and on-going environmental issue impacting public health for decades. Due to the poor air quality, individuals who participate in recreational activities outdoors, including cycling, are at risk for short and long-term health risks from exposure to air pollution. The purpose of this study is to determine if stationary cycling outside compared to inside can have adverse effects on the cardiopulmonary system secondary to acute air pollution exposure.

Methods and Design – During the weeks of March 10th and 17th of 2014, personal exposures to multiple air pollutants were measured while ten non-smoking, healthy, male subjects between the ages of 21 and 30 years old rode stationary bikes for 40-minutes at either the indoor location of California State University Fresno's Kinesiology Human Performance Lab (March 11th and 20th) or the outdoor facility at the California State University Fresno Foundation (March 13th and 18th), adjacent to Highway 168, to compare indoor versus outdoor conditions. On testing days, ambient temperature and humidity with sensors, particulate matter (PM) 2.5 using Dust Trak DRX 8533 and 8534, ultrafine particles using CPC 3007, and black carbon concentrations via MicroAeth AE51 were measured using real-time monitors along with baseline, post-test, and 4-hours post-test measurements of manual blood pressure (BP), heart rate (HR) and HR variability via chest straps, oxidative stress via saliva samples, subjective Borg ratings, and pulmonary function testing with a spirometer. The study is a within-group experimental design since all subjects participated in the outdoor and indoor stationary cycling bouts.

Results and Conclusion –The personal exposure to air pollution levels by location and time are to be analyzed and compared along with changes in HR and HR variability, oxidative stress, and pulmonary function testing.

Effectiveness of structured exercise program vs home exercise program

Alkan, Hatice

Background: Previous studies have shown that exercise interventions reduce fall risk in older adults; however, the effectiveness of the different types of specific interventions has not been explored. The purpose of this study is to compare the effectiveness of a 12-week structured group balance and mobility program (BMP) to a self-guided home exercise program (HEP) on balance, function and psychological well-being of community dwelling elderly adults (CDEA).

Methods: 31 CDEA aged 65 or older were screened at baseline, given exercise recommendations and re-screened within 6 months. The exercise group (EG), (N= 23, 16 females) participated in a 12-week group balance and mobility class whereas the control group (CG), (N=8, 6 females) were instructed on a HEP. Outcome measures included the Fullerton Advanced Balance (FAB), 8-Foot Up and Go (8FUG), 30-Foot Walk Test (30FWT), Balance Efficacy Scale (BES), and Center for Epidemiologic Studies Depression Scale (CES-D) questionnaire.

Results: When compared, there were no statistically significant differences between groups for FAB ($p= 0.128$), 8FUG ($p= 0.577$), 30FWT ($p>0.05$), BES ($p=0.796$), and CES-D ($p= 0.428$). Visual review of results suggests the EG improved scores on the BES, the CES_D and the 8 Foot up and Go, whereas CG scores remained same or declined.

Conclusion: This study examined the effectiveness of a structured BMP on function. Preliminary results show no differences in the effectiveness of a structured BMP; however, trends suggest that a BMP has greater gains in psychosocial factors and mobility and should be explored in future studies with an improved design.

Electromyographic analysis of core muscle activation during lumbar stabilization exercises: implications for rehabilitation and training

Chan, Barbara

Introduction: Since studies have suggested contributing factors to low back pain include delayed muscle activation leading to misalignment of the lumbopelvic complex, introducing an objective measure to accurately obtain stability is imperative. The purpose of this study is to use new equipment called the Level Belt to accurately measure core stability during progressive stabilization exercises and to surface electromyography to identify muscle recruitment patterns when performing these exercises.

Methods: 15 female healthy subjects were recruited for this study. Surface electromyography was used to record activity of multifidus, transverse abdominis, quadratus lumborum and external oblique during three core stabilization exercises: static sitting and dynamic sitting on a swiss ball, and planking. Level belt application was set to two degrees of pelvic tilt for minimal movement.

Results: In healthy female subjects, plank produced levels greater than 45% for the transverse abdominis and external oblique, and dynamic sitting produced over 45% for the quadratus lumborum and external oblique. Previous studies have referenced this as percentage needed to produce sufficient muscle gains. The muscle activity produced with static sitting was very minimal, possibly sufficient for endurance training.

Conclusion: Our results demonstrate that muscle activity increased with progressive exercises, suggesting these exercises are appropriate for core stabilization to decrease reoccurrence of low back pain. By applying the level belt, this study was also able to identify the muscle activity required to maintain core stability. Clinical practice would benefit from using this application as it provides real time biofeedback for patients to accurately recruit necessary muscles.

Real-Time Quantification of Stress in Nursing Students during a High-fidelity Human Simulation

Person, Brittany

BACKGROUND High fidelity human simulation (HFHS) provides clinical experiences by placing students in realistic high-stress situations that mimic the acute care setting yet in a safe environment. In order to optimize learning during HFHS, it is necessary for students, faculty and clinicians to be able to quantify stress and understand which psychosocial variables contribute to learning. This is the first study to correlate salivary cortisol and a commercially available heart rate variability (HRV) instrument to measure stress during HFHS in first year nursing students and assess how inherent personal characteristics modulates this stress.

METHODS 16 first year nursing students participated in a standardized HFHS in the Fresno State Simulation Laboratory. Each student was fit with the iThlete ECG chest strap to collect real-time ECG data and calculate heart rate variability (HRV). Salivary samples were obtained before and after the simulation as a gold standard for stress quantification. The BIG 5 Personality test and KOLB Learning Styles Inventory were administered to students to assess personality type and learning style. HRV and cortisol levels were compared. HRV was compared to personality type and learning style.

RESULTS Currently in the process of analyzing data concerning HRV and salivary cortisol and the results of the BIG 5 Personality Test and KOLB Learning Styles Inventory.

DISCUSSION This study provides a real-time, non-invasive measurement of stress in an academic setting. It can also be used to assess types of personalities and learning styles that are most successful in stressful situations associated with health care professionals.

Novel treatment Paradigms for Patients with Upper Motor Neuron Dysfunction

Voelz, Kimberley

Background: The spectrum of upper motor neuron disease (UMN) implicates clinical pathology resulting in symptoms of rigidity, spasticity, and ultimately poor control of motor function even when strength is preserved. Despite medical management, uncomfortable symptoms can be reduced but overall function often remains sub-optimal. The purpose of the proposed pilot study is to define an alternative physical therapy protocol to assist patients with minimal or no ability for ambulation due to UMN pathology.

Objectives: To examine the use of standing frame (SF) therapy with dynamic upper extremity mobility in conjunction with partial bodyweight supported treadmill training (PBWSTT) as an effective treatment for patients with UMN pathology.

Methods: Two patients were identified with UMN dysfunction and exposed to 4 weeks of SF therapy with dynamic upper extremity mobility in addition to 4 weeks of PBWSTT. Postural control was measured with functional reach test/modified-functional reach tests (FRT/mFRT), Lower extremity (LE) function with APPEL's LE scores, and gait parameters with the GAITRite[®] system. Results: Subjective video and quality of life changes supports intended objectives of the study. APPEL's scores identified improved LE function. Improvements in FRT were inconsistent. Regularity of the stepping kinematics varied with changes in step length, cadence and velocity.

Conclusion: SF plus PBWSTT has the potential to improve function in patients with UMN pathology. More investigation needs to be done.

Poster Presentations: Session I - 1:15-2:15 p.m.

HML: HML 2nd Floor

Abou Naoum, Michelle & Matthew Merrit

Identifying disrupted genes in Mycobacterium smegmatis transposon mutants

Faculty Advisor: Dr. Mamta Rawat

Adineh, Shadi & Sheyla Aucar

Identification of disrupted genes in Mycobacterium smegmatis transposon mutants

Faculty Advisor: Dr. Mamta Rawat

Aucar, Sheyla & Matt Pomaville

Spatial Learning Assessment in Split-Brain Periplaneta Americana

Faculty Advisor: Dr. David Lent

Bansal, Sangeeta

Impact of Salinity on Biological Nitrogen Fixation and Nitrogen Fertilizer Requirements in Alfalfa (Medicago sativa)

Faculty Advisor: Dr. Sharon Benes

Bansal, Yogesh

An Efficient Protection Scheme for Database-driven Web sites from SQL Injection Flaws

Faculty Advisor: Dr. Jin Park

Baroi, James, Sowmya Tummala, Kennedy- Kiet T. Vu, Annabelle Lolinco, Kylie Markarian, Clarrisa Niino, Robyn Verhalen & Catalina Olea

Concentrations of Selected Organics and Reactive Oxygen Species Generation from PM 2.5 Extracts

Faculty Advisor: Dr. Alam Hasson

Beebe, Andrew

Crop Load Management and Regulated Deficit Irrigation Affect Vine Performance

Faculty Advisor: Dr. Kaan Kurtural

Blacketer, Melissa

Variability in Hot Subdwarfs and Related Objects from the Palomar-Green Catalog

Faculty Advisor: Dr. Frederick Ringwald

Bright, Max

Physics Pedagogy and Outreach: Teaching New Teachers to Use Demonstrations

Faculty Advisor: Dr. Donald Williams

Cook, Michael & Gregory Gambetta

Leaf Removal and Deficit Irrigation Effects on Grapevine Performance Indices

Faculty Advisor: Dr. Kaan Kurtural

Ford, Kiersti, John O.H. Stone, Greg M. Stock & Susan R. Zimmerman

Cosmogenic Nuclide Exposure Dating of the Tiltill Rock Avalanche, Yosemite National Park

Faculty Advisor: Dr. Christopher Pluhar

Gong, Steven

Environmental Effects on Introduced Copepods in the San Francisco Bay

Faculty Advisor: Dr. Brian Tsukimura

Gujarathi, Shivalee

Effect of Nef protein on TNT formation in macrophages

Faculty Advisor: Dr. Karine Gousset

Huh, Ian, Robert Gene, Jyothi Kumara & Roger McKenzie
Neutralization of *Listeria Monocytogenes* by Single Domain Antibodies
Faculty Advisor: Dr. Cory Brooks

Llanos, Rhaul & Oscar Tejido
Molecular Definitions of Mitochondrial Complexes which Regulate Apoptosis
Faculty Advisor: Dr. Laurent Dejean

Mahmood, Bushra
Regulation of Carbohydrate Metabolism by Proto-Oncogenes Bcl-2/xL: a Transcriptomics Approach
Faculty Advisor: Dr. Laurent Dejean

Montgomery, Jordan
Genetic Mapping of Hybrid Developmental Delay with Novel Near-Isogenic Lines of *Caenorhabditis Briggsae*
Faculty Advisor: Dr. Joseph Ross

Movahedin, Mohammadreza
Structure-Guided Engineering of a Tumor Specific Therapeutic Antibody
Faculty Advisor: Dr. Cory Brooks

Nelson, Clinton
Pruning Systems and Irrigation Stress on Yield and Berry Quality
Faculty Advisor: Dr. Kaan Kurtural

Oliver, David
The Effects of Including Stratigraphic Surfaces in Stacking Pattern Analysis
Faculty Advisor: Dr. Mara Brady

Ortega, Brandon & Vishal Sharma
Identification of the Disrupted Gene in *M. smegmatis* Transposon Mutants
Faculty Advisor: Dr. Mamta Rawat

Pham, Kevin
Elucidating the cellular and Genetic Basis of Hybrid Dysfunction between Wild Isolates of *Caenorhabditis Briggsae*
Faculty Advisor: Dr. Joseph Ross

Tummala, Sowmya
Investigation of the sources of Reactive Oxygen Species in ambient Particulate Matter
Faculty Advisor: Dr. Alam Hasson

Vargas, Andres, Ryan Fukud & Nicholas Soliz
Thermopower Puck for Measurements of Thermodynamic Properties
Faculty Advisor: Dr. Pei-Chun Ho

Whalen, William
Exploring Alternative Methods of Spheroid Culture Using MDA-MB-231 Breast Cancer Cell-lines
Faculty Advisor: Dr. Jason Bush

Yadav, Pappu
Embedded Optical Link
Faculty Advisor: Dr. Dr. Gregory Kriehn

Poster Presentations: Session II - 2:30-3:30 p.m.

HML: HML 2nd Floor

Aliotti, Ashley

Functional training for a female patient with a below the knee amputation and a primary diagnosis of Scleroderma

Faculty Advisor: Dr. Jennifer Roos

Alkan, Hatice

Acute Care Physical Therapy Intervention for Hematopoietic Stem Cell Transplantation

Faculty Advisor: Dr. Jennifer Roos

Bailey, Chayna

Rhotics and Laterals in Dominican Spanish

Faculty Advisor: Dr. Michael Shepherd

Cahill, William

The Imperial Education Model

Faculty Advisor: Dr. Maritere Lopez

Cates, Chelsea, Jessica Barrows, Clarissa Carbullido, Jeff Muelle & Mike Ochoa

Cell phone/gaming use correlated with a positive Finkelstein's Test.

Faculty Advisor: Dr. Harshavardhan Deoghare

Chan, Barbara

Functional Rehabilitation Strategies for the Patient with Persistent Radiculopathy following Conservative and Surgical Management: A Case Report

Faculty Advisor: Dr. Jennifer Roos

Dastgheib, Foroogh

Pink Figures: The story of violation against the Iranian people by dictatorship of Iran

Faculty Advisor: Dr. Stephanie Ryan

Gill, Amandeep & Rosalie Avila

Clinical Versus Accelerometry-Based Tests of Fall Risk in Older Adults

Faculty Advisor: Dr. Marcia Thompson

Jamero, Christopher

Isokinetic Comparison of Collegiate Baseball Players With and Without Glenohumeral Internal Rotation Deficit

Faculty Advisor: Dr. Tim Anderson

Keith, Elaine

Multisensory Training for a Patient Diagnosed with Lupus Cerebritis

Faculty Advisor: Dr. Peggy Trueblood

Kuipers, Jenna

Resources for Healthcare Providers to Promote Fever Management for Parents of Various Ethnicities

Faculty Advisor: Dr. Terea Giannetta

McMillen, Rebecca

Art Museum Access: Outreach Programs that Engage Audiences with Disabilities.

Faculty Advisor: Dr. Frances Alter

Person, Brittany

A Multi-dimensional Physical Therapy Approach to Cerebellar Ataxia

Faculty Advisor: Dr. Jennifer Roos

Strauch, Samantha

Comparing Fall Risk of Older Adults in a Community-Based Fitness Program to Non-Participants

Faculty Advisor: Dr. Catherine Jackson

Van Artsdalen, Ashley

From Crisis to Compensation

Faculty Advisor: Dr. Marcia Thompson

Voelz, Kimberley

A non-ambulatory adult with Cerebral Palsy, can therapeutic intervention change Quality of Life?

Faculty Advisor: Dr. Jennifer Roos

Wang, Victor

Illegal Firearms, Violent Crime, and Neighborhood Inequality in Fresno

Faculty Advisor: Dr. George Kikuchi

Poster Presentations: Session III - 3:45-4:45 p.m.

HML: HML 2nd Floor

Alcantara, Michelle

Cigarette Smoking Patterns Between College Students With and Without Disabilities

Faculty Advisor: Dr. Vicki Krenz

Badhesha, Paneet

Demographics, Roles, and Job Satisfaction of California School Psychologists

Faculty Advisor: Dr. Marilyn Wilson

Baldwin, Allie

Time Perception in Adults with and without Autism Spectrum Disorder

Faculty Advisor: Dr. Marianne Jackson

Casillas, Norma

Infant Bonding and The Home Visitor

Faculty Advisor: Dr. Ndidi Griffin

Conn, Reatha

Differences in HIV Testing by Risk Behaviors Among Students Attending Fresno State

Faculty Advisor: Dr. Vicki Krenz

Dick, Rhonda

Disseminated Coccidioidomycosis and Race/Ethnicity in Los Angeles County, California

Faculty Advisor: Dr. Vicki Krenz

Garza, Michael

Taxonomy of Human Flirtation

Faculty Advisor: Dr. Michael Botwin

Gueretta, Melissa

A Psychological Skills Program for Level 7, 8 and 9 Female Gymnasts

Faculty Advisor: Dr. Dawn Lewis

Harris, Karina

Efficacy of Concurrent Treatment in Improving Speech Production and Generalization

Faculty Advisor: Dr. Frances Pomaville

Hinshaw, Denise, Brittany Cunnigham, Alinna Card, Sukhjit Mann, Donald Vercellini

Performance on the Leiby-Asbell Neurocognitive Screening Examination

Faculty Advisor: Dr. Paul C. Leiby

Hubble, Sarah

Parent and Teacher Opinions on the Importance of Parental Involvement

Faculty Advisor: Dr. Marilyn Wilson

Johnson, Tasha

An Exploratory Study of the Learn2Earn Program: Linking Disconnected Adults to Post-Secondary Education

Faculty Advisor: Dr. Diane Oliver

Lyon, Hayden

The Effects of Moderate to Vigorous Intensity Exercise on Concentration

Faculty Advisor: Dr. Dawn Lewis

Madrigal, Amalia
PODs in Fresno: Current Perceptions and Suggestions for the Future
Faculty Advisor: Dr. Helda Pinzon-Perez

Mowrer, Jana
Weight Perception, Dieting Behaviors, and Self-Reported BMI in a Multiethnic Sample of Central California Adolescents
Faculty Advisor: Dr. Vicki Krenz

Rodriguez, Ana-Alicia
Parental Expectations of Social-Emotional Development in Early Childhood Education
Faculty Advisor: Dr. Hong Ni

Salinas, Patricia
Successful Motivation Factors in Non-Traditional Higher Education Student Graduates
Faculty Advisor: Dr. Berta Gonzalez

Shita, Meron
College Students' Sexual Practices and Contraception Use: Exploring Differences Based on Gender, Ethnicity, and Age
Faculty Advisor: Dr. Vicki Krenz

Sidorowicz, Kara
The Effects of Choice on Memory
Faculty Advisor: Dr. Karl Oswald

Turner, Katie
Use of positive statements in improving relationship satisfaction
Faculty Advisor: Dr. Marianne Jackson

White, Ashley
Differences in fruit and vegetable consumption and exercise among students
Faculty Advisor: Dr. Kara Zografos

Students by Alphabetical Order (First Name, Last Name – Time, Rm)

Aaron Weathers: 3:45-4:45 p.m., HML Rm: 2108
Aastha Goyal & Ehsan Dehgani: 1:15-2:15 p.m., HML Rm: 2108
Adam Soto: 1:15-2:15 p.m., HML 2nd Floor
Alexandra Jones: 1:15-2:15 p.m., HML Rm: 2134
Alexandra Clifton: 2:30-3:30 p.m., HML Rm: 3212
Allie Baldwin: 3:45-4:45 p.m., HML 2nd Floor
Alyse Ferguson: 3:45-4:45 p.m., HML Rm: 2108
Alyse Yeargan: 3:45-4:45 p.m., HML Rm: 2119
Amalia Madrigal: 3:45-4:45 p.m., HML 2nd Floor
Amandeep Gill & Rosalie Avila: 2:30-3:30 p.m., HML 2nd Floor
Ana-Alicia Rodriguez: 3:45-4:45 p.m., HML 2nd Floor
Andres Vargas, Ryan Fukuda & Nicholas Soliz: 1:15-2:15 p.m., HML 2nd Floor
Andrew Pokorny: 1:15-2:15 p.m., HML Rm: 2119
Andrew Beebe: 1:15-2:15 p.m., HML 2nd Floor
Antonia Martinez: 1:15-2:15 p.m., HML Rm: 2127
Ashley Aliotti: 5:30-8:00 p.m., HML Rm: 3212
Ashley Van Artsdalen: 2:30-3:30 p.m., HML 2nd Floor
Ashley Aliotti, Melany Bunting, James Davis, Ku Lee, Yai Xiong & Sally Lam: 2:30-3:30 p.m., HML 2nd Floor
Ashley White: 3:45-4:45 p.m., HML 2nd Floor
Barbara Chan: 5:30-8:00 p.m., HML Rm: 3212
Barbara Chan: 2:30-3:30 p.m., HML 2nd Floor
Becky MacQuarrie: 5:30-8:00 p.m., HML Rm: 2108
Belen Marquez: 3:45-4:45 p.m., HML Rm: 2134
Bernardo Reynoso: 3:45-4:45 p.m., HML Rm: 2119
Blanca Cavazos: 5:30-8:00 p.m., HML Rm: 2127
Brandon Ausmus: 2:30-3:30 p.m., HML Rm: 2119
Brandon Ortega & Vishal Sharma: 1:15-2:15 p.m., HML 2nd Floor
Brenda Sifuentez: 3:45-4:45 p.m., HML Rm: 2119
Brittany Person: 5:30-8:00 p.m., HML Rm: 3212
Brittany Person: 2:30-3:30 p.m., HML 2nd Floor
Bushra Mahmood: 1:15-2:15 p.m., HML 2nd Floor
Cari Loete: 5:30-8:00 p.m., HML Rm: 2127
Catalina Olea, Aroob Abdelhamid, Segun Ogunjemiyo, Shawn Ashkan, Julie Steele, Srikar Middala, Kennedy Vu, Laxmi R. Addala, Lucien Nana, Austen Scruggs & Reynaldo Luna: 1:15-2:15 p.m., HML Rm: 3212
Charles Kralowec: 3:45-4:45 p.m., HML Rm: 2134
Chathurika Goonawardena: 3:45-4:45 p.m., HML Rm: 2108
Chayna Bailey: 2:30-3:30 p.m., HML 2nd Floor
Chelsea Cates, Jessica Barrows, Clarissa Carbullido, Jeff Mueller & Mike Ochoa: 2:30-3:30 p.m., HML 2nd Floor
Chris Mallory: 3:45-4:45 p.m., HML Rm: 3212
Christina Monreal: 2:30-3:30 p.m., HML Rm: 3212
Christopher Jamero: 2:30-3:30 p.m., HML 2nd Floor
Clinton Nelson: 1:15-2:15 p.m., HML 2nd Floor
Daniel Ayala: 5:30-8:00 p.m., HML Rm: 2134
Daniel Gutierrez: 5:30-8:00 p.m., HML Rm: 2127
David Oliver: 1:15-2:15 p.m., HML 2nd Floor
Dean McGee: 5:30-8:00 p.m., HML Rm: 2134
Denise Hinshaw, Brittany Cunningham, Alinna Card, Sukhjit Mann & Donald Vercellini: 3:45-4:45 p.m., HML 2nd Floor
Dheeraj Maddini: 2:30-3:30 p.m., HML Rm: 2127
Donna Cooper: 5:30-8:00 p.m., HML Rm: 2134
Elaine Keith: 2:30-3:30 p.m., HML 2nd Floor
Elda Bautista: 2:30-3:30 p.m., HML Rm: 2108
Forough Dastgheib: 2:30-3:30 p.m., HML 2nd Floor
Greta Bell: 1:15-2:15 p.m., HML Rm: 2134

Hafez Alawdi: 1:15-2:15 p.m., HML Rm: 3212
Hana Suleiman: 5:30-8:00 p.m., HML Rm: 2108
Hatice Alkan: 5:30-8:00 p.m., HML Rm: 3212
Hatice Alkan: 2:30-3:30 p.m., HML 2nd Floor
Hayden Lyon: 3:45-4:45 p.m., HML 2nd Floor
Holly Miller: 5:30-8:00 p.m., HML Rm: 2119
Ian Huh, Robert Gene, Jyothi Kumaran & Roger McKenzie: 1:15-2:15 p.m., HML 2nd Floor
Ibeth Garcia: 3:45-4:45 p.m., HML Rm: 2127
Inge Milius: 2:30-3:30 p.m., HML Rm: 3212
James Thornburgh: 5:30-8:00 p.m., HML Rm: 2134
James Baroi, Sowmya Tummala, Kennedy- Kiet T. Vu, Annabelle Lolinco, Kylie Markarian, Clarrisa Niino, Robyn Verhalen & Catalina Olea : 1:15-2:15 p.m., HML 2nd Floor
Jana Mowrer: 3:45-4:45 p.m., HML 2nd Floor
Jarred Sturla: 1:15-2:15 p.m., HML 2119
Jeanna Furst: 3:45-4:45 p.m., HML 3212
Jenna Kuipers: 2:30-3:30 p.m., HML 2nd Floor
Jeremy Brownstein: 2:30-3:30 p.m., HML Rm: 2134
Jeremy Caldwell: 5:30-8:00 p.m., HML Rm: 2127
Jordan Montgomery: 1:15-2:15 p.m., HML 2nd Floor
Jose Reyes: 5:30-8:00 p.m., HML Rm: 2108
Jovana Lopez Vega: 3:45-4:45 p.m., HML Rm: 2127
Julie Boesch: 5:30-8:00 p.m., HML Rm: 2134
Kara Sidorowicz: 3:45-4:45 p.m., HML 2nd Floor
Karen Willis: 2:30-3:30 p.m., HML 2108 Karina Harris: 3:45-4:45 p.m., HML 2nd Floor
Katherine Urabe: 2:30-3:30 p.m., HML Rm: 2108
Katherine Contrestano: 2:30-3:30 p.m., HML Rm: 3212
Kathryn Gorman: 3:45-4:45 p.m., HML Rm: 2127
Katie Turner: 3:45-4:45 p.m., HML 2nd Floor
Katrin Boniface: 1:15-2:15 p.m., HML Rm: 2134
Kevin Pham: 1:15-2:15 p.m., HML 2nd Floor
Kiersti Ford, John O.H. Stone, Greg M. Stock & Susan R. Zimmerman: 1:15-2:15 p.m., HML 2nd Floor
Kimberley Voelz: 5:30-8:00 p.m., HML Rm: 3212
Kimberley Voelz: 2:30-3:30 p.m., HML 2nd Floor
Korey Reid: 1:15-2:15 p.m., HML Rm: 3212
Krish Arunachalam Thayappan: 2:30-3:30 p.m., HML Rm: 2127
Kurt Escobar: 3:45-4:45 p.m., HML 3212
Kyle Griffiths & Michelle Workman: 2:30-3:30 p.m., HML Rm: 2119
Laura Valencia Navarro: 1:15-2:15 p.m., HML Rm: 2108
Laura Yager: 3:45-4:45 p.m., HML Rm: 2119
Lisa Bizer-Hansen: 5:30-8:00 p.m., HML Rm: 2127
Liz Kenerly: 2:30-3:30 p.m., HML Rm: 2134
Liz Kenerly: 2:30-3:30 p.m., HML Rm: 2134
Lizabeth De La Cruz: 3:45-4:45 p.m., HML Rm: 2127
Lori Grace: 5:30-8:00 p.m., HML Rm: 2134
Lurena Brubaker: 5:30-8:00 p.m., HML Rm: 2127
Lynette Cortes: 2:30-3:30 p.m., HML Rm: 2108
Mary Estelle Anderson: 5:30-8:00 p.m., HML Rm: 2108
Max Bright: 1:15-2:15 p.m., HML Rm: 2nd Floor
Megan Kuneli: 2:30-3:30 p.m., HML Rm: Rm: 2108
Melissa Blacketer: 1:15-2:15 p.m., HML 2nd Floor
Melissa Gueretta: 3:45-4:45 p.m., HML 2nd Floor
Meron Shita: 3:45-4:45 p.m., HML 2nd Floor
Merriellen Cohrs: 5:30-8:00 p.m., HML Rm: Rm: 2134
Michael Gray: 3:45-4:45 p.m., HML Rm: Rm: 2119
Michael Cook & Gregory Gambetta: 1:15-2:15 p.m., HML 2nd Floor

Michael Garza: 3:45-4:45 p.m., HML 2nd Floor
Michelle Abou Naoum & Matthew Merrit: 1:15-2:15 p.m., HML 2nd Floor
Michelle Alcantara: 3:45-4:45 p.m., HML 2nd Floor
Mohammadreza Movahedin: 1:15-2:15 p.m., HML 2nd Floor
Nadine Mejia: 2:30-3:30 p.m., HML Rm: 2134
Nan Barker: 5:30-8:00 p.m., HML Rm: 2108
Nathan Miller: 1:15-2:15 p.m., HML Rm: 2108
Navreet Mahal: 1:15-2:15 p.m., HML Rm: 2119
Nicholas Clark, TariLee Frigulti, Zheng Zheng, Chris Wallis & Jianchi Chen: 1:15-2:15 p.m., HML Rm: 2119
Norma Casillas: 3:45-4:45 p.m., HML 2nd Floor
Paneet Badhesha: 3:45-4:45 p.m., HML 2nd Floor
Pappu Yadav: 1:15-2:15 p.m., HML 2nd Floor
Patricia Salinas: 3:45-4:45 p.m., HML 2nd Floor
Paul Lopez: 5:30-8:00 p.m., HML Rm: 2108
Ran Wei: 1:15-2:15 p.m., HML Rm: 2127
Reatha Conn: 3:45-4:45 p.m., HML 2nd Floor
Rebecca Atchley: 3:45-4:45 p.m., HML Rm: 3212
Rebecca McMillen: 2:30-3:30 p.m., HML 2nd Floor
Regina Bates: 2:30-3:30 p.m., HML Rm: 2134
Rene Rosas: 5:30-8:00 p.m., HML Rm: 2127
Rhaul Llanos & Oscar Tejido: 1:15-2:15 p.m., HML 2nd Floor
Rhonda Dick: 3:45-4:45 p.m., HML 2nd Floor
Ryan Melvin: 2:30-3:30 p.m., HML Rm: 2127
Sabrina Rodriguez: 5:30-8:00 p.m., HML Rm: 2108
Samantha Meroney: 3:45-4:45 p.m., HML Rm: 2119
Samantha Strauch: 2:30-3:30 p.m., HML 2nd Floor
Sangeeta Bansal: 1:15-2:15 p.m., HML 2nd Floor
Sarrah Hubble: 3:45-4:45 p.m., HML 2nd Floor
Shadi Adineh & Sheyla Aucar: 1:15-2:15 p.m., HML 2nd Floor
Shane Wood: 3:45-4:45 p.m., HML Rm: 2119
Sheyla Aucar & Matt Pomaville: 1:15-2:15 p.m., HML 2nd Floor
Shivalee Gujarathi: 1:15-2:15 p.m., HML 2nd Floor
Sophia Rizzo: 5:30-8:00 p.m., HML Rm: 2134
Sowmya Tummala: 1:15-2:15 p.m., HML 2nd Floor
Stacey Balkun: 3:45-4:45 p.m., HML Rm: 2119
Stephanie Droker: 5:30-8:00 p.m., HML Rm: 2108
Steven Gong: 1:15-2:15 p.m., HML 2nd Floor
Susana Ramirez: 5:30-8:00 p.m., HML Rm: 2108
Tasha Johnson: 3:45-4:45 p.m., HML 2nd Floor
Timothy Allison: 5:30-8:00 p.m., HML Rm: 2127
Victor Wang: 2:30-3:30 p.m., HML 2nd Floor
William Whalen: 1:15-2:15 p.m., HML 2nd Floor
William Cahill: 2:30-3:30 p.m., HML 2nd Floor
Xiaofan Zhao: 1:15-2:15 p.m., HML Rm: 2127
Yogesh Bansal: 1:15-2:15 p.m., HML 2nd Floor

