

**7<sup>th</sup> Annual Honors Capstone Research Conference**  
**John Rogers Faculty Development Center (FDC 118)**  
**May 14, 2008 (1:00-7:00pm)**

**1:00-2:20**

**Rafael Carrillo:** "Effectiveness of Study Abroad Programs in Providing an Intercultural Experience"

**Damon Millar:** "Evolving Attitudes Towards Eugenics and the Disabled in 20th Century America"

**Edgar Garibay:** "Death and Dying: Conceptual Characteristics of Grief and Religiosity in a Hospice Population"

**Philip Schmidt:** "Behind the Wire and Under the Radar: The Conflict of Culture in Prisoner of War Literature"

**2:30-3:50**

**Martha Durán:** "Bilingualism: an Eternal Dilemma"

**Priscilla Trevino:** "Multiple Intelligence Theory as a Tool for Improving Student Achievement"

**Anya Reeser:** "Perceptions of the Homeless: Why Help?"

**Rocio Garcia:** "Breaking the Mold: Promoting a Refined Pluralistic Logic for Understanding Assimilation Among Mexican Women in the U.S."

**4:00-5:20**

**Mark Lazari and Erik Todd:** "Kinetics of Elastase in the Presence of Inhibitors"

**C. Anne Engert:** "Leet 1337: New Modes of Meaning in the Argot of teh Internets, Spelling Pwned"

**Brian Mikhail:** "Corporate Social Responsibility within the United States: from Inception, to Implementation, to Viability"

**Ashley Flory:** "More Art Please: Exploring the Benefits of Art in Elementary Education"

**5:30-6:50**

**Kevin Close:** "Identity and Interpretation"

**Michael Ross Darmousseh:** "The Game of *Go*: Man vs Machine"

**Gurpreet Sihota:** "Dying for a Smoke: The Modulation of Apoptotic Processes as a Result of Cigarette Smoke Exposure"

**Cecilia Motelai:** "California Latinos and Environmental Issues (Hold on! Don't buy in just yet!)"

## **Senior Capstone Research Presentations:**

The following conference abstracts describe capstone research projects conducted by Honors seniors during the 2007-08 academic year. The concepts for these projects are described in greater detail in articles published in *Elements*, our 5<sup>th</sup> annual edition of the *Journal of Exploratory Research and Analysis*, published by the University Honors Program with the generous support of a grant from the Instructionally Related Activities (IRA) fund.

### **Conference Abstracts**

#### **Kevin Close: "Identity and Interpretation"**

***Mentor: Dr. Chris Nagel (Philosophy)***

This project aims at a description and assessment of a problem of knowledge for citizens. This problem relates to having only a fragmented apprehension of events, especially as they are given over to us through reports and narratives we have in news media and historical monographs. We can only exceed our limited perspectives through extrapolations and conceptual frameworks that allow us to meet events with a more accurate assessment and a more appropriate response. To tackle this problem, the enquiry will consider the analogy between scientific theory and the idea of a "conspiracy theory" in order to illustrate the significance of the problem. Through it, whatever we might consider "reason"—some formal means of deriving conclusions from premises—should seem to us indistinguishable from rationalization—perhaps entailing a movement from a pre-given conclusion to the subsequent formulation of premises that account for it.

#### **Martha Durán: "Bilingualism: an Eternal Dilemma"**

***Mentor: Dr. Juan Flores (Teacher Education)***

History shows that bilingualism is not a new phenomenon in the U.S.; however, it has become increasingly controversial. The United States has no official language and there are more than 300 languages widely spoken in this country. Despite this, some citizens support English-only policies, seeing English as the unifying force in American society. However, others support bilingual education programs as linguistic enrichment for all residents of the United States. Although bilingual education programs have been part of the curriculum of U.S. schools, often at the request of immigrant parents, these programs are mostly merely transitional: English language learners, after a certain period of time, are placed in mainstream classrooms. This presentation describes the controversy, giving evidence for several important cultural, communicative, and cognitive advantages of bilingualism, examines several clear misconceptions and fallacies concerning bilingual education, and traces critical attitudes toward bilingualism in the U.S. from the late 18<sup>th</sup> century to the present day.

**Ashley Flory: "More Art Please: Exploring the Benefits of Art in Elementary Education"**

***Mentor: Dr. Joan Wink (Teacher Education)***

Art in the elementary classroom presents many benefits to all students. Art activities can serve as a bridge to understanding for students. In addition, art has the potential to act as therapy for students with emotional issues. During early development, students who have difficulty verbalizing ideas can alternately use art to express themselves. With the current emphasis on standardization and high stakes testing, art has lost a place in the curriculum and its loss is a disservice to students emotionally and cognitively. The multiple intelligences tend to be neglected in a typical classroom environment. Linguistic and visual learners are often the students that thrive in a traditional classroom environment where other learners are left behind. Effective use of art in the classroom can bridge learning across all of the multiple intelligences and benefit all types of learners. In over one hundred hours during over three years of observation in elementary classrooms I have noticed the effectiveness of art in instruction. The benefit has been particularly evident at the kindergarten level where students are unable to communicate verbally or through writing, but can instead communicate ideas through illustration. The goal of this thesis is to examine the importance of this neglected area of education.

**Rocio Garcia: "Breaking the Mold: Promoting a Refined Pluralistic Logic for Understanding Assimilation Among Mexican Women in the U.S."**

***Mentor: Dr. Angel Sanchez (Sociology)***

The influx of European migration to the United States at the dawn of the 20th century resulted in the development of a model for understanding assimilation that has, consequently, created expectations for this process of integration that the U.S. public thereafter internalized. The dramatic increase in the Mexican migrant population in the United States since 1965 has thus given rise to a rich literature within the discipline of sociology that focuses on the process of assimilation throughout the generations. There is, however, a growing interest in the effects of the models researchers are using to measure assimilation (i.e., the Acculturation Rating Scale for Mexican-Americans and the Short Acculturation Scale for Hispanics) for Mexican women, and a recognition that their experiences are more complex due to their double minority status, thus subject to discrimination on the basis of both race and gender. The theoretical measures of assimilation—specifically, the classical model, the racial/ethnic disadvantage model, and the segmented assimilation model—as well as data from empirical case study interviews of 14 Mexican women residing in the Central Valley of California are presented to demonstrate that these models are ill-fitted to accurately depict the diverse nature of the actual assimilation experience. In particular, this study aims to assess the extent to which the measures of assimilation, the Anglo-conformist expectations of U.S. society, and the gender guidelines characteristic of Mexican culture have hindered the course of integration for Mexican women in the U.S. by propagating gender and racial prejudice.

**Edgar Garibay: "Death and Dying: Conceptual Characteristics of Grief and Religiosity in a Hospice Population"**

***Mentor: Dr. Dawn Strongin (Psychology/Cognitive Studies)***

This presentation describes a qualitative study I am conducting with family members of past patients of Optimal Hospice Care, a hospice facility in Modesto, California. My research subjects all have confronted the loss of a loved one within the past year. The study attempts to explore the participants' sense of religiosity (the role religion plays in the interpretation and response to particular events in a person's life) and their acceptance of loss (following the Kubler-Ross model). A survey based on two established measures of religiosity and acceptance of loss will be mailed to 300 potential participants,. The surveys will attempt to define whether there is a strong positive relationship between an individual's sense of religiosity and the effectiveness of their ongoing coping strategies in the grieving process.

**Brian Mikhail: "Corporate Social Responsibility within the United States: from Inception, to Implementation, to Viability"**

***Mentor: Dr. Ed Erickson (Economics)***

In the recent world of globalization, more and more firms are becoming aware of not only what type of business they conduct, but also how their business practices are carried out. The past few decades have seen immense and rapid industrialization across the globe. Nations, not to mention private firms, made fortunes by exploiting their key resources effectively and efficiently. In recent decades, however, many Western nations, and others like Japan, have adopted business models that while still heavily invested in areas like infrastructure, raw materials, and technology, demonstrate increasing environmental responsibility. Corporate Social Responsibility (CSR) has business benefits, key drivers that make it not only feasible but also relevant to current world issues. It has also recently been the subject of compelling criticism. This thesis examines the conduct of Starbucks Coffee Company in the exercise of CSR.

**Damon Millar: "Evolving Attitudes Towards Eugenics and the Disabled in 20th Century America"**

***Mentor: Dr. Rhoda Macdonald (Sociology)***

I discuss the origin and legal influence of the belief in eugenics, and the direct effect this belief had in the last century in terms of eugenics-based legislation in the U.S. The research project has two essential goals; to explore past and present U.S. attitudes towards eugenics, and to identify the impact of 20th century eugenics-based legislation on the disabled. My research methodology emphasized descriptive content analysis: examination of current and past newspapers, magazines, books, and films influenced by eugenics provided insight into attitude-formation, and legal records demonstrated how the lives of the disabled were affected. Most research on eugenics focuses on specific areas and lacks a broad picture of how disability has been treated historically. My research aims to show how such beliefs arose, developed and became institutionalized through legislation addressing disability in ways that parallel discriminatory legal practices against ethnic minorities in the last century.

**Cecilia Motelai: "California Latinos and Environmental Issues (Hold on! Don't buy in just yet!)"**

***Mentor: Dr. Ed Erickson (Economics)***

This study will explore the relationship between the growth in California's Latino population and the spread of environmental problems impacting our communities in recent years. The paper will examine social justice issues that have been (and continue to be) debated in Californian communities. The main areas of my research address, first, the fast-spreading consumerism that is impacting our natural and human resources, and second, the aggressive tactics employed by marketing firms targeting the rapidly-growing Californian Latino population to achieve profit goals. My argument is not that profit is undesirable in our free-market economy, but that the kind of profit being achieved today is often designed only for short-term gain. This kind of profit is inefficient, wasteful, and unsustainable, because it depletes our natural resources and in the long run can only lead to bankruptcy. Furthermore, such unsustainable consumer market practices can cause internationally destructive economic, health, social, and environmental problems, reflected, for example, in global warming, which is impacting communities all over the world. Latinos in California should therefore keep in mind that environmentally unsound consumer market strategies aimed at them as a new purchasing group, while intended primarily to support short-term profits, could, if successful, entail serious negative global consequences. How should the Latino population respond?

**Anya Reeser: "Perceptions of the Homeless: Why Help?"**

***Mentor: Dr. Sarah Garfield (Teacher Education)***

Locally, homelessness has become a growing concern with the population of homeless persons nearing one thousand in Turlock alone. Currently, Turlock city officials and other local academic and religious leaders have taken part in a committee to approach solutions to the problem of homelessness. The perception of the general public regarding the homeless may play an integral part in what plan the committee decides to pursue, and much of the public's perception may be influenced by gender and causality of homelessness, along with other demographic factors. The current research hypothesized that male homeless individuals who are homeless due to controllable causality are most negatively perceived. 502 participants were randomly assigned to 4 conditions in which they read a short scenario of a homeless individual with the manipulated variables of gender and causality of homelessness. There were no significant results derived from the interaction of the variables (both male and female homeless were perceived so negatively that there was insignificant differences due to gender), yet there were significant results for ancillary hypotheses regarding the influence of causality of homelessness on perceptions of fault, external validity of the homeless scenario, and community burden.

## **Philip Schmidt: "Behind the Wire and Under the Radar: The Conflict of Culture in Prisoner of War Literature"**

***Mentor: Dr. Mollie Crumpton Winter (English)***

Prisoner of war historical fiction provides a unique lens through which cross-cultural interactions are proven to be a defining aspect of humanity, though many scholars have failed to recognize them as an important literary sub-genre. They have thus flown "under the radar" when they should in fact be given special consideration in multicultural studies in literature. In analyzing these works of literature, written by novelists who were once soldiers and prisoners of war themselves, the importance of cultural identity and the implications that arise from its endangerment become clear. Prisoner of war literature such as Pierre Boulle's *The Bridge Over The River Kwai*, John Okada's *No-No Boy*, James Clavell's *King Rat*, and Ha Jin's *War Trash* reveal a microcosm of the world and its cultural relations in the setting of a prisoner of war camp. In each work, ethnocentrism on the part of captors and prisoners alike arises to challenge cultural identities.

## **Priscilla Trevino: "Multiple Intelligence Theory as a Tool for Improving Student Achievement"**

***Mentor: Dr. Sheila Younkin (Teacher Education)***

Our society leads us to believe that there are smart people in this world - and then there are the not-so-smart people. But it is how we determine intelligence that can define whether a person is smart or not. Usually someone is defined as intelligent if they do well on tests. Yet, there are many smart people who do not do well on tests and excel in other areas besides reading and writing. The purpose of this proposal is to explore why some students in traditional public high school do better in school while others do not, and also to advocate for the use of the Multiple Intelligence theory (MI theory) in accomplishing the No Child Left Behind Act. While still a work-in-progress, this study will look at ways the MI theory can be utilized as a tool in the classroom to reach more students, to help them learn, and ultimately to improve student achievement.

## **Research Concepts (Honors Juniors):**

### **Rafael Carrillo: "Effectiveness of Study Abroad Programs in Providing an Intercultural Experience"**

Study abroad programs have recently been shortening terms abroad in an effort to recruit more students. While this has successfully augmented the numbers of applicants, it has undermined the purpose of the programs: to provide students with a cultural experience that would otherwise be unavailable to most students. It is argued that students need the exposure to other cultures that is offered through study abroad programs, and that many colleges need to increase the number of programs that offer study abroad terms. Some researchers, however, would argue that while exposure to cultures is valuable, simply shipping a student off to another country for a short period does nothing more than provide an intrinsic learning experience, a sort of vacation. This study, through interviews of study abroad program directors and students, will demonstrate through first hand accounts of several study-abroad students how short-

term study abroad programs (of 8 weeks or less) address the building of a student's intercultural competency. The discussion will be based on the Campina-Bocote (2002) model of intercultural competency which looks at students' intercultural knowledge, awareness, motivation, encounter, and skills (Pennington et al).

### **Michael Ross Darmousseh: "The Game of Go: Man vs Machine"**

Trying to mimic human intelligence has proven to be difficult in the area of artificial intelligence. However, over the years a number of different programs have been written that can outwit humans at board games like chess. A new challenge for artificial intelligence research has emerged in efforts to develop a program to play the board game Go. Currently, the best program only performs at an amateur level. For my project, I will be researching modern artificial intelligence techniques and algorithms while trying to implement a program that plays Go to standards above an amateur level.

### **C. Anne Engert: "Leet 1337: New Modes of Meaning in the Argot of teh Internets, Spelling Pwned"**

The advent of Internet culture presents new opportunities for the sociolinguistic study of language use and its social context. This study will focus on leet, or l33t as it is sometimes written, a text-based Internet jargon that began with hacker and gamer groups. Leet is often used among these groups to signify camaraderie and to identify in-group users and out-group in their Internet culture. Peter Farb's work explores the ways that users of slang may be very strict about its usage. Blashki's study showed the interaction of leet users on a university class discussion board, as they both used leet themselves and derided certain other user's leet as a sign of inauthenticity. My study will focus on leet use among gamers on game-related discussion boards or in-game text conversations. I want to find out what cues leet users employ in the computer-mediated environment to determine acceptable use and outsider misuse.

### **Mark Lazari and Erik Todd: "Kinetics of Elastase in the Presence of Inhibitors"**

Elastase is a proteolytic enzyme that is used to break down tissue during tissue remodeling. Remodeling is an important process involving the breakdown of damaged tissue and the construction of replacement tissue. Elastase activity is naturally inhibited by alpha-1 Protease Inhibitor (a1PI) but is activated by an oxidative environment. Cigarette smoke is highly oxidative and leads to an unnatural increase in the activity of elastase, resulting in excess tissue damage. This damage can lead to diseases such as chronic obstructive pulmonary disease (COPD) and emphysema. It has been proposed that a diet high in vegetables may prevent these cigarette-smoking-related diseases. The proposed research involves the study of the kinetics of elastase with the substrate, n-succinyl-ala-ala-ala-p-nitroanilide; the amount of UV absorbance of the reaction products will be measured. Extracts of vegetables will be tested as elastase inhibitors in order to find a suitable replacement for a1PI.

**Research Posters (Author/Title/Mentor):**

Yer Yang, Liberal Studies, "Extreme Body Modification for Personal Adornment Across Cultures", Dr. Helena Janes

Amy Denton, Liberal Studies, English Concentration, "The Reader-Writer Connection"

Mark Scholl, Spanish, "Code-Switching among Bilingual Chicanos", Dr Steve Stryker

Kristin Showalter, Art & Theatre, "How Television Influences Children's Imagination", Mr. David Olivant

Teresa Madruga, Psychology, "The Effects of Brand Name Clothing on Person Perception", Dr. Todd Nelson

Jenessa Knight, Criminal Justice & Psychology, "Norteños vs Sureños."

Tia Renée Shelley, Computer Science, "Programming Languages as Tools: How the Failures of the Past Drive the Developments of the Future", Dr. Tom Carter

Rachel Patrick, Chemistry, "Alternative Fuels", Dr. Michael Perona

Andrea Uplinger, Philosophy, "Identity Erasure", Dr. Darren Hutchison

Sarah Doorenbal, Business, "Female Empowerment and Childlessness", Dr. Helena Janes

Kimberly Stevenson, History, "Raunch, Feminism or Backlash?"

Hilary Johnston, Biology, "The Effects of Nitrogenous Wastes on the Health of Fish"

Christine Benafi, Biology, "Physical Therapy Procedures and their Effectiveness on Lower Back Pain"

Yvonne A. De La Cruz, English, "The Significance of Science Fiction Literature in Our Present World", Dr. Scott Davis/Dr. Tom Carter

Justin Hartsfield, "LFG (Looking for Group): Videogames Consoling the Social Outcast"

Eugenio Gutierrez Lopez, "Microsoft's Monopoly Game"