INDIANA UNIVERSITY SOUTHBEND
UNDERGRADUATE RESEARCH CONFERENCE
FRIDAY, APRIL 24, 2019
UGRSCH@IUSB.EDU
# 2009 Indiana University South Bend Undergraduate Research Conference

**Friday, April 24, 2009**

*Conference Program and Abstracts*

## Schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 9:15 am</td>
<td>Registration</td>
<td>DW east hallway</td>
</tr>
<tr>
<td>9:15 – 9:30 am</td>
<td>Opening Remarks</td>
<td>DW 1001</td>
</tr>
<tr>
<td>9:30 – 10:30 am</td>
<td>Early Morning Session</td>
<td>DW 1160 – DW 1180</td>
</tr>
<tr>
<td>10:30 – 11:00 am</td>
<td>Poster Session and Coffee Break</td>
<td>DW east hallway</td>
</tr>
<tr>
<td>11:00 – 12:00 pm</td>
<td>Late Morning Session</td>
<td>DW 1160 – DW 1180</td>
</tr>
<tr>
<td>12:00 – 1:15 pm</td>
<td>Lunch and Panel Discussion</td>
<td>The Grille</td>
</tr>
<tr>
<td>1:30 – 2:45 pm</td>
<td>Afternoon Session</td>
<td>DW 1160 – DW 1180</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

The organizers of this conference (Lee Kahan, Andrea Rusnock, Jay VanderVeen, and Lisa Zwicker) would like to thank all the students who have taken the time and made the effort to present their research or creative activity at this conference. We hope that they continue to be life-long seekers of knowledge. Their faculty mentors (named in parentheses in this program) are also to be commended for their dedication to developing scholars.

We are appreciative of the support provided to this conference by Vice Chancellor for Academic Affairs Alfred Guillaume. This event is made possible with funding from his office and time donated by committed IU South Bend instructors and staff — including the members of the Undergraduate Research Advisory Council.

Finally, a special mention is deserved by the student publicity design winners: Jonathan Kitchens (poster), Lindsay Allison (program cover), and Trystan Nisley (slide shows).

PROFESSIONAL COURTESY

Please be considerate during the student presentations. Participants in a session should remain in the room during their colleagues’ presentations. The research delivered in each session may offer new and relevant information from which one can expand their own ideas. Other audience members should refrain from entering and leaving session rooms during presentations so as to cause the least disruption.
EARLY MORNING SESSION

Gender Differences (DW 1160)
Moderator: Ken Smith, English

9:30 The Female Athlete in Gymnastic Sport: Dislodging Male Dominance through Representation
Susan Bower (Mattox)

9:45 In the Ring, Out the Box: The Female Pugilist’s Bout against Gender Constraints in the Late Twentieth /Early Twenty-First Century
Schawan Harris (Mattox)

10:00 Gender and Bystander Effect: Victims, Observers and the Relevance of Sex Differentials in Violent, High-Risk Situations
Jennifer Pace (McGuire)

The Sciences (DW 1165)
Moderator: Matt Marmorino, Chemistry

9:30 Using High Pressure and High Temperature to Create Hydrocarbons: An Application of the Hydrothermal Diamond Anvil Cell
Marteve Gray (Scott)

9:45 Synthesis of Perfluoroalkyl Lead Compounds
Amanda Groendyke, Brittany Kish, and Phillip BeMiller (Feighery)

10:00 Modular Forms associated with K3 surfaces in String Theory
Nate VanderWerf (Schimmrigk)

10:15 Investigating the Shark Repellent Properties of Electropositive Metals
Rumya Sundaram (Bushnell)

International Affairs (DW 1170)
Moderator: Neovi Karakatsanis, Political Science

9:30 Promise Amid Peril: Africa’s Relationship to the United States and Its President
Corine Holzwart (Bennion)

9:45 Human Rights and Enemy Combatants: President Obama’s Decision to Close the Guantanamo Detention Facility
Bridget Meade (Bennion)

10:00 The Easter Rising: British Positions and Foreign Impressions
Gregory Warrell (Zwicker)
Education (DW 1180)
Moderator: Cathy Borshuk, Psychology

9:30 Precocious Parenting: Self-Esteem in Adolescent Girls
Kellirae Boann (Gerken)

9:45 The Effects of Personality and Self-Esteem on Classroom Participation
Lori Olando (Rodriguez)

10:00 The Effects of Math Studio and Fractals Class on Self-Concept and Motivation
Nancy Watreas (Ritchie)

POSTER SESSION

Posters (DW east hallway)

10:30 View posters displaying student research from Biology (Mecklenburg), English (Magnan-Park and Smits), and World Language Studies (Fong-Morgan).

LATE MORNING SESSION

Gender Representation (DW 1160)
Moderator: April Lindinsky, Women’s Studies

11:00 Reinventing the Wheels: Feminism and Anti-Feminism in Texas Rollergirls’ Roller Derby
Tim Chupp (Mattox)

11:15 The Kotex Cup: Traditional Gender Roles in NASCAR and Its Sponsors’ Commercials
Adrienne Latson (Mattox)

11:30 Portrayal of Men andWomen Students on University Websites
Courtney Sheets (Borshuk)
Creative Writing (DW 1165)
Moderator: Clayton Michaels, English

11:00  How to Live Your Life; Mother
   Cody Miller   (Parker)

11:15  AP: Asset Protection
   Jeff Carrier   (Parker)

11:30  Life in the Fast Lane
   Jake Jones   (Parker)

11:45  Bixby
   mf robinson   (Parker)

Public Policy (DW 1170)
Moderator: Jamie Smith, Political Science

11:00  Barack Obama and the Promise of Sustainability
   Diane Beck   (Bennion)

11:15  Health Care on the Horizon?: Set Backs in President Obama’s Promise to
   Reform the Health Care System
   Hannah Polston   (Bennion)

11:30  Obama’s Relationship with Congress During the First 100 Days
   Ednardo Santos   (Bennion)

Religion (DW 1180)
Moderator: Yosuke Nirei, History

11:00  Views on the Separation of Church and State
   Katherine Parker   (McGuire)

11:15  An Appeal to Heaven: Christianity and Community in Harriet E. Wilson's Our Nig
   Maureen Pickar   (Mattox)

11:30  Songs of Saints and Heretics: Cultural Influences on Three Chronicles of the
   Albigensian Crusade
   Jennifer Wise   (O'Connor)
LUNCH

Panel Discussion (The Grille)
12:00 The Unwritten Rules of the Publishing World
Naoko Fujimoto (Editor, Analecta)
Rebecca Gibson (Editor, New Views on Gender)
Darryl Ricketts (Editor, Undergraduate Research Journal)

AFTERNOON SESSION

Culture (DW 1160)
Moderator: Anne Magnan-Park, English
1:30 The “Tamachek Vibration”: How Musicians Rework Identity through Fluid Cultural Traditions
Katie Detamore (Torstrick)
1:45 Cranial Deformation and Religious Ties in the Caribbean Taíno
Darryl Ricketts (VanderVeen)
2:00 National Learning and Japanese Nationality
Shotaro Yoshino (Nirei)
2:15 The Role of the Native American "Half-breed" in Leslie Marmon Silko's Ceremony
McKenzie Sanders (Mattox)

The Cold War (DW 1165)
Moderator: Linford Fisher, History
1:30 False Ames
Joelle Clemons (Nashel)
1:45 Winning Can Be Losing: An Analysis of World Champions on Ice II
Heather Martin (Mattox)
2:00 Warm Countries and the Cold War: American Cold War Policies in the Third World
Rebecca Gibson (Nashel)
2:15 Bad Fortune in Guatemala
Kim Johnson (Froysland)
Aesthetics (DW 1170)
Moderator: Kelcey Parker, English

1:30  Bayeux Tapestry: A Visual Analysis
     Tabetha Coburn-McDonald   (Rusnock)

1:45  The Creation of Self through Performativity: Gertrude Stein's *Alice B. Toklas*
     Cheri Gray                (Lindinsky)

2:00  The Adventures of Wes Anderson: Anderson and the French New Wave
     Mitchell Robinson         (Roth)

2:15  Gender and Autobiographical Form in Zora Neal Hurston
     Brandynne Chapla          (Lidinsky)

The Mind and Body (DW 1180)
Moderator: Christina Gerken, Women’s Studies

1:30  You Can’t Fake a Bodyslam: Labor Conditions in Professional Wrestling
     Greg Burosh               (Mattox)

1:45  Common Characteristics of Recidivists
     Sherry Martin             (Rodriguez)

2:00  Mood and Productivity
     Christy Tidd              (Rodriguez)

2:15  In Vindication of the Daunted Dualist
     Erica Vicsek              (Shrader)
**PRESENTATION ABSTRACTS**

Balan-Rizzo, Angela, Shaun Christensen, Saul Ponce Lugo, and Sarahi Villalvazo

“From Boxer to Poet: ‘Corky’ Gonzales”

Rodolfo “Corky” Gonzales was born in Denver, Colorado in 1928. His mother died when he was two years old; he and his seven siblings were raised by his father Federico Gonzales, a Mexican immigrant that instilled in his children a pride of Mexican history and culture. Corky was admitted to the university, attended for a year, but was unable to afford the tuition and was unable to complete his studies. He decided to continue his career as a boxer and gained fame as one of the best boxers in the world. Inspired by the Chicano Civil Rights Movement and the struggle to define a Mexican-American identity, in 1967 Corky Gonzales published the epic poem “Yo soy Joaquin”, an extraordinary literary work that presents Mexican history as an integral part of Mexican-American culture.

Beck, Diane

“Barack Obama and the Promise of Sustainability”

Since the energy crisis of the 1970’s, presidential administrations have looked for ways to become more sustainable in energy and the environment. President Obama has made sustainability a top priority for his first term in office. This paper analyzes what those promises are, the current population concern about sustainability, and the current institutional climate compared to past presidential administrations back to President Carter. This is done by analyzing President Obama’s speeches, Executive Orders, memorandum, and legislative bills to prove that Mr. Obama is in a very good position to move forward on this agenda.

This paper will make a valuable contribution to the literature on presidential rhetoric and the ability to keep campaign promises by providing a case study of the Obama administration’s progress on sustainability during its First 100 Days. This paper will also help readers to understand the potential and limits of the First 100 Day’s framework for judging presidential administrations and promise-keeping. In addition, this research will be useful to citizens, scholars, and interest groups interested in promoting sustainability in the United States and worldwide. The world is working to enhance global sustainability efforts. Knowing what is happening and understanding the conditions under which positive steps can be taken will help to further this agenda.

Boann, Kellirae

“Precocious Parenting: Self-esteem in Adolescent Girls”

While there has been much debate over the quality and content of sex education and how it relates to teen pregnancy, not much focus is spent on why a certain segment of the adolescent population chooses pregnancy. An additional question is whether or not an adolescent can make a truly informed choice to become a parent. Peer pressure, lack of resources (both at home and in the community), and lack of accurate information all contribute to undercutting self-esteem, which I consider the key element leading girls to precocious parenting.

In my oral presentation, I will provide an overview of the existing research on how self-esteem is sabotaged in teenage girls. In addition, I will discuss the first phase of my own research project. My own research will begin this summer and include
interviews with people who either work or volunteer in fields that bring them in contact with teens, specific to the issue mentioned here. I have received IRB approval to approach local organizations that have valuable, first-hand insight as to local dynamics, attitudes, challenges and needs. Discovering what is already being done in our community can help determine what is missing, providing clues as to what can be done in the future to ensure that girls have accurate, timely information and ongoing support to reach their full potential before becoming parents.

Bower, Susan
“The Female Athlete in Gymnastic Sport: Dislodging Male Dominance through Representation”
This paper analyzes a 2006 Game Show Network documentary titled “The Magnificent 7: Anything to Win” which depicts the historic moment of victory for the 1996 U.S. women’s Olympic gymnastics team and their struggle for the gold. Drawing from the documentary’s form, Gramsci’s hegemony theory, and multiple essays pertaining gender and sport, I situate the period within a cultural context of various discourses on gender and discuss different facets of male dominance and the anxiety which strong women create. Through championing a young female’s injury for the sake of sportsmanship, the documentary tries to smash the view of the female as “weak” but in doing so only brings the perpetual problem of our society’s male dominant views to the forefront, exuberating the fact that much work still needs to be done in order for any sort of equality between the sexes to exist.

Burosh, Greg
“You Can’t Fake a Bodyslam: Labor Conditions in Professional Wrestling”
Since 1998, 65 professional wrestlers under the age of 45 have passed away. Many of them were current and former performers in Vince McMahon’s World Wrestling Entertainment (WWE), the premiere wrestling promotion in the world. This paper examines working conditions in the WWE since the 1980s by focusing on the career of Tom “Dynamite Kid” Billington, a former high-flying wrestler who is now confined to a wheelchair, through stories told in the autobiographies of Billington and his ex-brother-in-law Bret “Hitman” Hart. It also examines the lack of a labor union in professional wrestling, the history of labor unions in American sports, and how attempts to unionize by former wrestlers Jesse “The Body” Ventura and “Big” Jim Wilson were quickly quashed. Calls for a pro wrestling union have resurfaced in the wake of the Chris Benoit double murder-suicide as well as the release of Oscar-nominated film, The Wrestler. Director Darren Aronofsky has called upon the Screen Actors Guild (SAG) to intervene on behalf of the wrestlers, and this paper also looks at the possibility of this happening. In addition to the autobiographies and interviews with Billington, Hart, Ventura, and Wilson, this paper will analyze wrestling as labor through the articles of renown wrestling journalists Wade Keller and Dave Meltzer. Professional wrestling tends to be dismissed as “trash entertainment” in mainstream American media, so this paper also examines media coverage of wrestling and whether that portrayal has allowed the working conditions to continue to be unregulated.
Calderon, Jessica, Amanda Collins, Daisy Giles, and Giuseppe Marturano
“Carmen Lomas Garza”
Carmen Lomas Garza plays a very important role in the Latino culture. Her art and children’s books have helped others to learn more about and respect Latino culture and traditions. Carmen has loved art since she was a child; however, the 1970’s Chicano Movement motivated her to paint about her culture. Family and religion are very important in her life and are shown throughout her art and books. Garza paintings are based on traditions of Latino culture as well as her own experiences, from quinceañeras and making tamales with her family to breaking piñatas for her birthday. Her children’s books are also about her family and the experiences that they have shared. Carmen’s main objective with her paintings is to educate others while keeping her own memories alive. She has inspired Latinos to be proud of being who they are, and has also helped them to become proud of their traditions.

Carrier, Jeff
“AP: Asset Protection”
Walter is an undercover employee at a large supermarket chain, trying to stop shoplifters. This is his story. This is his struggle.

Cerezo, Edith, Cruz Gallegos, Daniel Little, Isamar Rivera, and Mariela Robledo-Rodriguez
“Cinco de Mayo: Contradictions between Cultures”
Although Cinco de Mayo is not a sizeable celebration in Mexico, the date is embraced in the United States as an event in which to showcase Latino culture. On May 5, 1862, a poorly armed band of Mexican soldiers led by General Ignacio Zaragoza Seguin -- and outnumbered 2-to-1 -- did the improbable by defeating a well-outfitted French army bent on taking over the country. In Mexico, it is considered to be a National holiday. In the United States, Cinco de Mayo is seen as a day to celebrate the culture, achievements and experiences of people with a Mexican background. Other aspects of the day center on traditional symbols of Mexican life, such as the Virgin de Guadalupe, and Mexican-Americans who have achieved fame, fortune and influence in the United States. The largest and most prominent celebrations of Cinco de Mayo are in cities such as Los Angeles, San Jose, San Francisco, San Antonio, Sacramento, Phoenix, Albuquerque, Denver and El Paso in the Southwest of the USA. In these cities, a large proportion of the population has Mexican origins. Cinco de Mayo has been adapted in the United States as a reason to celebrate rather than understanding the culture and aspects of the true meaning of “Cinco de Mayo”.

Chapla, Brandynne
“Gender and Autobiographical Form in Zora Neale Hurston”
This paper focuses on the topic of women's autobiography in context and comparative analysis with concentration on the autobiographical work of Zora Neale Hurston. I will include material from four other critics of Hurston’s work to support my analysis. This is in effort to share relative definitions of autobiographical work as it is understood as well as interpreted between opposing genders. In concentrating the focus on examples of women's autobiographical work, the underlying motives and themes will become obvious to the audience. The topic of women's autobiography is a messy one, yet one that has drawn much attention as
well as critique. It contrasts to traditional male autobiography in very key areas. In the past women's autobiography has been dismissed as inauthentic or something other than truistic for the fact that it did not fit the patriarchal model of autobiographical writing. I would like to open this topic up and unfold it through analysis and examination in order to promote a better understanding of gender difference in regard to writing women's autobiography.

Chupp, Tim
"Reinventing the Wheels: Feminism and Anti-Feminism in Texas Rollergirls’ Roller Derby"

In Austin, Texas in the year 2003 roller derby was reinvented by the Texas Rollergirls roller derby league; their reconstruction of this sport effectively facilitated a nationwide and subsequently transnational revival of the reinvented version of the women’s sport. Roller derby athletes, newspaper journalists, and others frequently present the sport as empowering, liberating for women, and as a manifestation of third wave feminism. Stress reduction, superb exercise, the thrill of aggressive bodily contact, and camaraderie are oft-repeated as reasons for engaging in the violent contact sport, while the strong DIY work ethic, inclusivity of all women, and subversive use of language all suggest this latest incarnation of women’s roller derby is indeed representative of the third wave of feminism. However, I will argue in the forthcoming paper through an analysis of the Texas Rollergirls league that their reinvention of roller derby reinforces patriarchal notions of femininity through their use of personas and spectacle which facilitate the male gaze of objectification, and because of this the reinvented version of roller derby should be denied feminist status.

Clemons, Joelle
"False Ames"

This paper examines the case of a CIA agent turned traitor, Aldrich Ames, and the failures of the CIA to recognize the obvious warning signs of his treachery. It describes Ames’ beginnings as a CIA agent and the roots of his treasonous activities. The paper then explains the serious flaws endemic to the CIA that led to Ames’ treason and the tragedies resulting from it. Finally, it posits the existence of a vast culture of arrogance and an attitude of invulnerability that permeated the CIA and allowed Ames’ treason to go unnoticed and unchecked for many years. This analysis contributes to the scholarship of CIA history by delving deeper into the internal conflicts, issues, and attitudes inherent to the Cold War era CIA. By utilizing current accounts of Ames’ life and treachery as well as declassified government documents this paper offers a unique modern perspective of the Ames case, the culture of the CIA, and cold war America.

Coburn-McDonald, Tabetha
"Bayeux Tapestry: A Visual Analysis"

The Bayeux Tapestry is a historical document of the legendary Battle of Hastings and the Norman conquest of England in 1066. The tapestry is one of the most important medieval historical documents that we have today. The Bayeux Tapestry is actually an embroidery. The large embroidery depicts many aspects of medieval life. The work which is 20” inches in height and 230 feet long, has over 600 human figures,
thousands of animals, and hundreds of architectural structures. Various social strata of the Normans and the Saxons are represented in the embroidery, which is one of the reasons it is a pivotal historical document.

This paper will analyze many aspects of the Bayeux Tapestry, most importantly the historical element and the different social context that are portrayed in the document. Also to be discussed is, who commissioned the tapestry and why. The techniques of the embroidery, the quick lapping stem stitch and the laid-and-couched stitch and the eight primary colors that were used is essential to the detail in the tapestry, will be discussed. A part of the tapestry has been restored, leading scholars to question the accuracy of the restoration. The end of the tapestry is missing; therefore there is no way to know how the artists’ depicted of the end of these events. While the Bayeux Tapestry has been studied for many years, but there are key questions that have not been answered. This paper will discuss the possible answers to some of these questions.

Coria, Gabriela, Talhia Flores, Asya Mazurova, and Brock Wappes
“David Gonzales”
This article describes life and work of one of the most prominent representatives of Chicano culture, David Gonzales. His cartoons of famous gangster looking dolls “Los Homies” inspired by artist’s personal life and experience raised controversial opinions and provoked numerous critics about the impact of such art on the young generation. The essay attempts to examine several opinions about the meaning of his work and to demonstrate why in spite of all controversies Gonzales’ creations represent an invaluable contribution to popularization of Chicano culture. Importance of the Lowrider magazine as a defender and main publisher of his work is taken into account. In conclusion, the article highlights the recent tendencies of David Gonzales’ work aspirations and glorifies his overall success.

DeLaPaz, April and Walter Calhoon
“Genetically Engineering Retinophilin Chimeric Constructs Using PCR Fusion Techniques”
Retinophilin is expressed in the retina and encodes MORN repeats. MORN repeats are sequences that cause the protein to associate tightly with the membrane and are conserved in humans. The function of human retinophilin is unknown but the gene is conserved in Drosophila melanogaster. In flies, retinophilin is expressed in the photoreceptor cell and localizes to the rhabdomere. Human retinophilin, when expressed in Drosophila photoreceptor cells, does not localize properly. Using Drosophila as a model, our goal is to engineer three human/fly retinophilin chimeric genes using PCR fusion, to discover the function of the repeat. Chimeric genes were constructed using PCR, which amplifies small portions of DNA by denaturing target molecules due to heating to high temperatures. The solution is then cooled which allows the primers to anneal to the single stranded DNA with Taq polymerase for strand elongation. In order to construct the human/fly chimeras, primers were designed to include the correct sequences so that each primer can correctly anneal to the complimentary strand of DNA. In this project the three constructs engineered are the C-chimera, MORN chimera and the N-chimera. Currently we have designed primers for each PCR reaction and have engineered the fly/human/fly construct. Further experiments will lead to the completion of the
remaining two constructs. All three constructs will be tested in *Drosophila* to determine where the protein product localizes.

Detamore, Katie
“The ‘Tamachek Vibration’: How Musicians Rework Identity through Fluid Cultural Traditions”

The Tamachek of Mali are a unique people group among the larger Tuareg subgroup of Berber people who live in Northern Africa. Unfortunately, little is known of the Tamachek in particular because most of the extensive ethnographic studies of Tuareg groups have taken place in Niger and Algeria. As part of a study abroad program based in Mali’s capital city Bamako, I was able to conduct a two month research study among a small Tamachek community located there. During that time, I lived with a Malian family, took music, dance, and artisan lessons from a Tamachek music group, while performing interviews with them as well as two organizations working with the larger Tamachek community. As a result of these connections, I was able to perform with my Tamachek informants at two concerts and learn much about their traditional, yet fluid forms of music, dance, and dress and about the social cause they support through their art. Through the transformation of these traditions, my Tamachek informants renegotiate their own social and cultural identities. Not only does this research add valuable information about Tamachek musical traditions and fluid identities to the small body of research about them, it also provides an important look at the wider issue of praise singing in Mali and calls into question its validity in connection with the support of a social cause through musical traditions.

Gibson, Rebecca
“Warm Countries and the Cold War: American Cold War Policies in the Third World”

The nuclear standoff between America and the Soviet Union, which began during the Second World War and continued until the early 1990s, became known as the cold war. This period of history began as veiled hostility on the part of American and Soviet leaders and soon escalated into an overreaching global fear of nuclear annihilation. The influence of these two superpowers touched the rest of the world, not only because of the chilling memory of Hiroshima and Nagasaki, but because WWII left the European nations in desperate need of natural resources, such as oil. Those resources became a vital bone of contention between America and the Soviet Union. While the nuclear arms race was the most visible front on which the cold war was waged, a real battle was also fought for the hearts, minds, and resources of third world locales whose loyalty was based not on strong ideological bonds with America or Russia, but on the will of whoever had controlled them during the colonial period in their history. Many historical documents touch on how the fear of nuclear aggression, the American and Soviet needs for oil, and the desire for beneficial public relations came together to influence relations between America and key third world countries such as Iran, Puerto Rico, and, Ghana. Each of these countries provides a fascinating case study of how the cold war impacted their societies and economies and how American foreign policy acted on and reacted to three different sections of the third world. From the role of the overthrow of Prime Minister Mossadeq undertaken by the United States in Iran, to the more gentle roles of the Peace Corps in Ghana and the collusion with Puerto Rica’s tourism
board, America had its fingers in many third world countries’ political and cultural pies. These countries’ positions were crucial, not only to halting the spread of communism, but to the economic and social interests of America.

Gray, Marteve
“Using High Pressure and High Temperature to Create Hydrocarbons: An Application of the Hydrothermal Diamond Anvil Cell”
A diamond anvil cell (DAC) is an instrument used for creating high pressures. One application of a DAC is the replication of the pressures found at depth in Earth’s crust and mantle, and I am specifically interested in the potential for hydrocarbons, such as methane, to form at mantle pressures. DACs use two diamonds to compress a sample which is held in a chamber drilled into a metal gasket. I indirectly determined sample pressures by adding a ruby crystal to the chamber and using a 532 nm-wavelength laser in order to make the ruby fluoresce; the pressure-induced fluorescence shift in ruby is documented, and the measured fluorescence spectrum was used to calculate sample pressure. Temperatures in the DAC were controlled by flowing current through resistive wires wrapped around each anvil, and temperatures were measured with thermocouples in direct contact with the anvils. Consistent with previous workers, I found that temperature had an effect on our ability to measure ruby fluorescence within the DAC. As an alternate method of obtaining the pressure while at higher temperatures, I attempted to use a samarium-doped yttrium aluminum garnet (Sm:YAG) as a phosphor, but the fluorescence was extremely weak, even at high laser power. Instead, a larger ruby crystal was placed into an Au-lining inside the chamber that allowed the crystal to not react with the sample and still be found by the laser. I tested this technique of simultaneously measuring both pressure and temperature on a sample of Fe-Calcite-H2O. I compressed the sample to 2 GPa prior to heating. I increased the temperature to 600 °C and found the pressure increased to 5 GPa. After temperature quenching the sample I measured Raman spectra of the reaction products at Argonne National Lab. The Raman data suggests the formation of methane; heavier hydrocarbons do not seem to be produced. It appears that some of the methane reacted with H2O to form a clathrate structure.

Gray, Cheri
“The Creation of Self through Performativity: Gertrude Stein's Alice B. Toklas”
What is autobiography? On the surface, a seemingly simple question, but one that has many answers. Some may think autobiography is a section at the book store or the public library. Others are quite sure an autobiography is a published book recounting a person's life. Autobiography is more complex than chronicling the events that comprise a person’s life. Through autobiography (or self narrative), the self is created. By self, I mean who we are intrinsically as human beings. The way we experience the things in our life gives meaning to the experiences in our life. Autobiography and the self are inseparable and necessary to understand our self in context of our experiences. Gertrude Stein's story is told in The Autobiography of Alice B. Toklas. Stein's self narrative is a third-person account observed through the eyes of Alice Toklas and narrated using her voice. Using performativity as a basis for a theory of autobiography, The Autobiography of Alice B. Toklas is a performance where Gertrude Stein's self is created as the effect of
writing the autobiography. Stein's self is developed through performativity and through the performances Stein tells her story.

Groendyke, Amanda, Brittany Kish, and Phillip BeMiller
“Synthesis of Perfluoroalkyl Lead Compounds”
We have been researching and synthesizing compounds involved in the study of “Dark Matter.” The search for dark matter includes a number of different experiments that use a variety of detection techniques. One such technique involves the use of superheated droplet detectors, in which droplets of freon (perfluoroalkane) would vaporize to form bubbles upon interaction with particles of dark matter. The dark matter interacts with the fluorine in freon, but fluorine does not have a large atomic size. Incorporating a large atom, such as lead, into the detector medium could potentially make the detectors more sensitive. To that end, in the chemistry department we have attempted to synthesize a series of new perfluoralkyl lead compounds. The results of the synthesis and characterization of these compounds will be discussed.

Harris, Schawan
“In the Ring, Out the Box: The Female Pugilist’s Bout Against Gender Constraints in the Late Twentieth /Early Twenty-First Century”
My research paper will focus on the public portrayal of the female pugilist in Clint Eastwood’s acclaimed film “Million Dollar Baby”. My work will critically examine Eastwood’s rigid representation of the female boxer, ultimately revealing that the accolades given to this film—as many people believe it challenges social constraints on femininity—are unwarranted for the actions of Eastwood’s female prize-fighter simply reinforce female subversion as perpetuated via the constraints of gender norms. As evidence for this claim, I will analyze Eastwood’s 2003 film alongside Karen Kusama’s 2000 representation of the female pugilist as portrayed in her film “Girlfight”. In doing so, I will ultimately show that while by the late twentieth/early twenty-first century women had made great strides in obtaining an equal stance in the public realm: educational, occupational, political, and military, hegemonic ideals about gender, asserting that “real” women should be docile, obedient creatures, were subtly reinforced in various ways including both media misrepresentation and underrepresentation of women excelling in historically male dominated realms. Therefore, Eastwood’s flat representation of the female pugilist in his film works to dispel Kusama’s round representation of the constructs of femininity as her pugilist successfully and simultaneously embodies qualities deemed both masculine and feminine, thus broadening the social understanding of gender in the 21st century.

Holzwart, Corine
“Promise Amid Peril: Africa’s Relationship to the United States and its President”
Barack Obama’s successful bid for the presidency had a major impact on the United States and the world. With a strong and emotional response to his election worldwide, expectations for the president are high. African nations are significantly more positive than our Western allies, maintaining high expectations about the positive role of the U.S. and its first African-American president. This paper will document African’s opinions, expectations, and responses to his first 100 days as president. This study discusses the historical relationship between Africa and the
United States, analyzes trends in African public opinion, tracks key stories by international news agencies, and summarizes the academic literature on the relationship of African nations and peoples to the United States and its president. Ultimately, it concludes that the president faces high expectations, but that these expectations can be met through a combination of modest financial investments and symbolic politics.

This paper will contribute to our understanding of President Obama’s impact on the world. It will contribute to a large political science literature on presidential popularity and leadership, updating it to understand the intense global interest and enthusiasm for the Obama presidency.

Hoops, Stephanie, Kim Houck, Jose Magallon, Daniela Martin, and Holly Tavares
“Chicano Park”
Chicano Park was founded in 1970 in San Diego, California. The Chicano community sought to establish their presence as a cultural minority. The community traveled a long and arduous road to be able to establish a park that would represent them as a whole. Their community was physically invaded by city laws that permitted the construction of highways as well as socioeconomic challenges that threatened the ability of their community to thrive. The research about Chicano Park examines the community’s history, the struggles involved in the establishment of the park, and the art and celebrations showcased there. Chicano Park is become a part of the American culture. It emphasizes the need of respect for minorities that reside in this country. This park allows the whole American community to absorb a broader understanding of history through its art, and learn of the different struggles that neighboring communities have overcome.

Johnson, Kim
“Bad Fortune in Guatemala”
This paper aims to discuss the U.S.-sponsored coup in Guatemala in 1954 when President Jacobo Arbenz was overthrown. Arbenz and his predecessor Juan Jose Arevalo were democratically-elected reformist governments after a long period characterized by dictatorship and widespread social inequalities. The focus of this paper is the changes implemented by Arevalo and Arbenz, particularly the groundbreaking agrarian reform policy, and the U.S. response to these reforms, in the context of the Cold War.

The paper examines the views of various officials in the United States, including the presidential administrations, the Department of State, the Central Intelligence Agency, and the U.S. ambassadors in Guatemala, during this time of rapid change. Beginning with the Truman administration, the U.S. government was concerned with their perceived instability of several countries in Latin America. However, I argue that the U.S. officials’ exploration of the situation was viewed through a Cold War lens of either capitalist or communist, and no in-between. Continuing through the Eisenhower administration and at the height of the Red Scare, the U.S. government did not have a thorough understanding of Guatemalan history or politics. The Cold War black-and-white politics only exacerbated the problem of the U.S. seeing Guatemala through a biased lens; and because several political decisions were based on fear, the U.S.’ foreign policy in Latin American was very one-sided. The U.S. government used its power in the Organization of American States, to
develop and spread the consensus that communism in Guatemala was an immediate threat.

Jones, Jake
“Life in the Fast Lane”
A story about the origins of a revolution, in the annals of the future, against the powers of efficiency, by those created within those powers, and served up at a million miles a minute.

Latson, Adrienne
“The Kotex Cup: Traditional Gender Roles in NASCAR and its Sponsors’ Commercials”
The sport of NASCAR is highly commercialized, but what message are the commercials sending about women’s gender roles in society and sports? Using content analysis of commercials aired during races, this essay examines the social implications of traditional and stereotypical female gender roles aired during a family oriented sporting event. Even when commercials pretend to defy gender roles, stereotypes are reinforced. To increase sales and viewership, NASCAR and its sponsors exploit females using stereotypes.

Martin, Heather
“Winning Can Be Losing: An Analysis of World Champions on Ice II”
This paper analyses the NBC Sports figure skating video entitled World Champions on Ice II. It argues that NBC has arranged its narrative to view Russia in a villainess role, with the United States, Canada, and France as heroes regardless of scores. The video was made in 1994, after the fall of the Soviet Union just a few years before. Drawing upon evidence about The Cold War and its close, we can see that this video uses a Cold War lens to conclude who are the “winners” and “losers”. Because of political discourse, the figure skating competitions are presented in a limited viewpoint. The paper contributes to our understanding about post-war history and international-relations.

Martin, Sherry
“Common Characteristics of Recidivists”
The present study examined the factors and characteristics that contribute to the recidivism rate of prisoners in Indiana. This study focused on characteristics and factors that may relate to recidivism and the influence of rehabilitation programs targeting these characteristics and factors that might reduce the rate of recidivism. Statistics have also shown that more than half a million offenders return to our communities from prison every year. In Indiana, there is a 67 percent recidivism rate (International Community Corrections, 2003). The present study considered many characteristics and factors related to recidivism, including the successful completion of a rehabilitation program which is Dismas House of Michiana in the state of Indiana, also known as a halfway house, as well as demographic information, education level, and employment. This study used archival information from existing files present at the Dismas house of Michiana where convicted offenders who had been released from prison enrolled in the program. The Dismas House program and the use of the Department of Corrections (DOC) database helped retrieve recidivism information.
Meade, Bridget  
“Human Rights and Enemy Combatants: President Obama’s Decision to Close the Guantanamo Detention Facility”  
President Obama’s decision to close Guantanamo Bay Naval Base (Guantanamo) terminated facilities performing controversial intelligence gathering while implying that prisoners of war are entitled to similar civil rights as American citizens. This paper will explore the incidents and reasons that led to President Obama’s executive order and analyze how this action has affected the way the United States views the rights of prisoners of war. The paper highlights the key arguments for and against closing the detention facility, as well as the major factors contributing to the president’s decision to close the facility. This research draws upon academic journal articles, newspaper and magazine articles, books, government documents, personal accounts, websites, and public opinion polls. This study will add to our understanding of the national debate surrounding human rights, constitutional rights, and the rights of enemy combatants in the United States.

Miller, Cody  
“How to Live Your Life” and “Mother”  
In “How to Live Your Life,” a man who has yet to figure out the best way to make it from day to day in his own life tries to help readers reveal his secrets. In “His Mother,” a man relives a tragic event in his life over and over again, only to realize that he blocks out one detail.

Miller, Gabe  
“Identification of Homologous Drosophila and Human Brain Genes”  
Studying model organisms provides potentially useful insights into more generally applicable biological processes. In particular, Drosophila as a model organism is used to gain information regarding conserved molecules involved in human nervous system function. Our studies involve genes isolated from Drosophila brain tissue. The objective of our research was to obtain sequences of Drosophila genes, identify those expressed in the brain, and focus on the subset conserved in humans. We isolated bands of DNA which were subsequently purified. We used the IUSB Biology Department’s Toshiba ABI3130 DNA sequencing machine to obtain the DNA sequence from Drosophila brain genes. These sequences were then used to search the databases of NCBI and Flybase for possible known gene sequences. One of these matched a gene known to be expressed in the central brain. This appeared to be promising with respect to the possibility of matching our gene not only to a fly homolog, but to one additionally present in humans. We hope to use these new fly-human brain gene homologs to genetically analyze their function.

Olando, Lori  
“The Effects of Personality and Self-Esteem on Classroom Participation”  
The purpose of the present study was to look at the effects that personality and self-esteem have on classroom participation. The types of personality investigated during the present study were extraversion and introversion. Two classrooms were observed for an hour and fifteen minutes during a four day period. On the fifth day, the Keirsey Temperament Sorter and Rosenberg’s Self Esteem Scale was given to the participants to measure personality and self-esteem. Based on previous studies,
the hypothesis for the present study was people with higher self-esteem and have an extraversion personality type would participate more in the classroom setting. Looking at personality and self-esteem in educational settings may give teachers a better understanding of why their students participate and how to encourage their students to participate more.

Ortiz, Irma R., Anna M. Sgambellury, and Sarah R. Sheley
“Expression of Human Transducin and Arrestin in Drosophila Photoreceptor Cells”
Our research involves investigating the effects of cloning the human transducin and human arrestin genes into the fly genome and localizing the protein products within the fly photoreceptor cell. Human transducin and arrestin are found in vertebrate retinal rods and cones. Rhodopsin absorbs photons of light and activates the photoreceptor cell. When rhodopsin contacts transducin, the phosphodiesterase activates a series of signaling events referred to as the phototransduction cascade. If this cascade continues for a long period of time, it causes the photoceptor cell to undergo light-dependent retinal degradation which can lead to blindness. In order to prevent this from happening it is necessary to terminate the cascade with arrestin. This protein binds to activated rhodopsin and inactivates it and thus, phototransduction cascade stops. Localization of transducin and arrestin in the fly photoreceptor cell will help us observe their function in a novel photoreceptor cell environment. For this, it is our goal to clone them first into pEntr and then into transformation destination vectors. The DNA constructs will be sequenced to confirm their identity. The genes will be introduced into the fly with standard transformation techniques. It is our goal to determine if the human proteins are stable, if they can properly localize, and if they function.

Pace, Jennifer
“Gender and Bystander Effect: Victims, Observers and the Relevance of Sex Differentials in Violent, High-Risk Situations”
Concerning the phenomenon known as, ‘The bystander effect’, are sex and gender differences important factors in human response to emergency? In violent, high-risk situations, the presence of ‘others’ has been found to affect the likelihood of response by observers. This paper proposes that because gender roles are so influential on what is considered appropriate social behavior, this likelihood of response is also affected by the sex/gender of the observer as well as the victim. Research was analyzed on topics such as gender and helping and patriarchal society’s expectation of weakness in women with the complimentary expectation of strength in men. Research on social psychological views on ‘The bystander effect’ was also analyzed. Women were found to help more in low-risk situations and were also easily accepted as victims. Women’s intentionally placing themselves in potential danger, even if it is altruistic, was not found to be acceptable behavior. In contrast, it was found that it was acceptable for men to supply aid, especially in physically dangerous situations. Also, there was a measurable amount of inappropriateness attached to men’s receiving or needing help. These findings reflect that female victims receive more help than male victims, and that men are more likely to help in dangerous situations than women. Although these conclusions did support this paper’s theory of the influence of gender roles in violent, high-risk situations being substantial, other research presented stronger support that the
sheer number of observers was the most influential factor in human response to emergency.

Parker, Katherine
“Views on the Separation of Church and State”
What factors affect a person’s beliefs concerning the separation of church and state? In this paper I propose that a person’s views on the separation of church and state are affected by what religious denomination they belong to, their level of religiosity, and what type of high school they attended (public, Catholic, non-religious private, or private Christian other than Catholic). Forty surveys total were distributed at four churches in the South Bend/Mishawaka area, ten at each church. These churches included one Baptist church, one Methodist church, one Pentecostal church, and one Catholic church and were selected by using previously known contacts who were members of each church.
I found that religiosity and religious denomination both affect a person’s belief about the separation between church and state. A person with a high level of religiosity is more likely to hold accommodationist/communitarian beliefs about the separation of church and state. This means that they are likely to approve of religious displays on government property, such as the Ten Commandments, or allowing prayer in public schools. This is also true for a person who belongs to a Pentecostal or Baptist church. The type of high school a person attended was not found to have an effect on their belief about the separation of church and state.

Pickar, Maureen
“An Appeal to Heaven: Christianity and Community in Harriet E. Wilson’s Our Nig”
This essay brings into dialogue the relationship between community and Christianity in Harriet E. Wilson’s *Our Nig, or Sketches from the Life of a Free Black*. This essay focuses on the role of Christianity in the early life of *Our Nig*’s main character, Frado, the dynamics of her relationships with those around her, and how her search for a community effects her relationship with Christianity. By engaging with discourses of race based on logic, science, and Biblical understandings of Wilson’s contemporaries, this essay examines any possibility of Frado’s relationship with Christianity. Based on textual evidence from the novel, *Our Nig* suggests that acceptance in a community is a prerequisite of the acceptance of Christianity for the African American woman. This essay adds to the discourse in African American literature, and adds to the complex understanding of the lives of free African American women during slavery.

Polston, Hannah
“Health Care on the Horizon? Set Backs in President Obama’s Promise to Reform the Health Care System”
Healthcare is a major issue in the United States. President Obama has made great emphasis on his plan for healthcare reform. This paper examines the promises made by Obama throughout the campaign and thus far into the presidency. After looking at Obama’s promises and proposed plans for reforming healthcare along with a brief history of healthcare reforms by other presidents, this paper concludes that economic deficits and other setbacks, including unsuccessful cabinet appointments, have not allowed much progression within these early days of
Obama’s presidency. This issue is of central importance to millions of uninsured and underinsured Americans, as well as the growing health care industry.

Ricketts, Darryl
“Cranial Deformation and Religious Ties in the Caribbean Taíno”
Reasons for the use of artificial cranial deformation (ACD) have long been known to range from signifying elite status and religious practices to a form beautification. Permanent alteration of the cranial vault is seen in prehistoric peoples all over the world, and physical anthropologists have studied the incidence of ACD as a means of deciphering behavioral and cultural traits on all continents throughout history. Unfortunately, little attention has been paid to the pre-Columbian cultures of the Caribbean, especially in Hispaniola. The Taíno, as the indigenous peoples are known, practice a form of religious iconism that is unique to the Caribbean, and shows remarkable resemblance to their practice of ACD. This paper examines the artificial cranial deformation practice among Taíno Indians on the island of Hispaniola from the Ostionoid through the Chicoid periods (A.D. 600 - A.D. 1500), in relation to their most peculiar religious icons. Two skeletal collections from the Museo del Hombre Dominicano in Santo Domingo, Dominican Republic are examined, along with the known icons at the time, for possible religious reasons for this bizarre practice.

Robinson, Mitchell
In this paper, “The Adventures of Wes Anderson: Anderson and the French New Wave,” I argue that Wes Anderson’s Rushmore (1999) is the cinematic offspring of the French New Wave and in particular the auteur theory championed by Francois Truffaut. For example, Truffaut’s film, The 400 Blows (1959), and Anderson’s Rushmore are cinematic accounts of the directors own coming of age. Using The 400 Blows as an example of the French New Wave we can see how Wes Anderson, much like Truffaut, uses the theory of film authorship to tell a personal story and mirror the life of the director.

robinson, mf
“Bixby”
Told through a pastiche of voices, "Bixby", is about Hal Eckdahl, a young retirement community Chaplain, who achieves religious celebrity after twice being resurrected. The story is told through the voices of the residents, co-workers, church leaders, and even 60 Minutes--all attempting to use Hal for their own priorities and needs.

Sanders, McKenzie
“The Role of the Native American ‘Half-breed’ in Leslie Marmon Silko's Ceremony”
This essay focuses on the choice between cultural assimilation, the concept of an individual converting from the language and practices of their own culture to the popular culture; and adaptation, in which an individual decides to embrace one culture and have an understanding of customs, practices, beliefs and language of another. In Leslie Marmon Silko’s Ceremony, the story is about a boy named Tayo, his family and people from the surrounding villages. The narrator of the story refers to Tayo as a “half-breed” (Silko 109), which means having one Native American
parent and one parent of another background, such as White or Mexican. The complexity of Tayo is that he has to have an understanding of both the Native American culture and mainstream culture in order to survive. His desire was to embrace his Native American heritage and to have an understanding of the mainstream culture. The majority of Tayo’s family either assimilated into the mainstream culture or embraced the old Native American traditions. The true question, then, is which type of culture does the novel see as most likely to survive – the old traditional, the mainstream culture or the “half-breeds”? Despite the constant struggle against assimilation, Silko’s novel argues that the characters who survived in society were the half-breeds because of their understanding of these two divided cultures and by creating their own community, which also generated a cycle of surviving and ensuring other “half-breed” survival, which breaks away from the support given to cultural assimilation by other scholars.

Santos, Ednardo
“Obama’s Relationship with Congress during the First 100 Days”
In the months following their inauguration, presidents experience a honeymoon period where the public, the press, and Congress view him favorably and are more inclined to support their policies. This paper examines President Obama’s relationship with Congress during his first one hundred days. Using a variety of electronic resources and databases, this study analyzes Obama’s level of success by looking at congressional response and support for his legislative agenda. It concludes that, as expected due to the particular institutional, political, and economic factors present at the time, Obama had a fairly successful honeymoon despite unified minority opposition.
This paper will contribute to the literature on presidential relations with Congress by providing an early analysis of the Obama administration’s efforts in promoting its legislative agenda. It will be useful in gauging President Obama’s level of legislative success during his first one hundred days and in evaluating whether this arbitrary analytical framework allows for success, especially considering the hype and expectations surrounding him. It will also allow us to compare Obama’s early record with that of other presidents and provide a historic perspective on his achievements.

Sheets, Courtney
“Portrayal of Men and Women Students on University Websites”
A study was done on 76 college websites to determine whether men and women students were portrayed differently in the pictures posted on the university home page and student life page. A total of 788 students (344 men, 444 women) were shown on the websites, and were categorized by dress (nicely dressed, casual dressed, sloppier dressed, and scantily dressed) and by what type of student role was portrayed (athlete, performer, scholar, and other student). The results show that female students are portrayed more often and wearing fewer clothes than male students, and that men were shown more in nicely dressed attire. Also, of the small number of female athletes shown (3%), each was shown in either cheerleading or volleyball attire complete with spandex and/or short skirts. This suggests some gender differentiation in college websites.
Sundaram, Rumya
“Investigating the Shark Repellent Properties of Electropositive Metals”
Sharks are major a bycatch in longline fisheries and this problem appears to be contributing to the worldwide decline in shark populations. Because many sharks are able to detect minute electrical fields, researchers have focused on this modality as a potential avenue for deterring sharks. We tested an electropositive metal that generates a small electric field when placed in salt water for its efficacy as a potential shark repellent. Laboratory experiments were conducted to study juvenile sandbar sharks’ (*Carcharhinus plumbeus*) behavioral response to electropositive metal alone and also with a food stimulus. Results indicated that the sharks would avoid the metal, even when motivated by hunger. During field trials using bottom longline gear, catch rates of juvenile sandbar sharks were significantly reduced by the presence of electropositive metal pieces placed 10 cm above baited hooks, compared to catch rates on hooks in proximity to plastic pieces of similar dimensions (16 sharks versus 42 sharks, respectively). Interestingly, rays, which also have electroreceptors, appeared to be undeterred by the electropositive metal. These results suggest that electropositive metals could substantially reduce shark bycatch on longlines, and may eventually have broader use as a shark repellent.

Tidd, Christy
“Mood and Productivity”
Past research has found support for the happy-productive worker theory which states that a happier employee will be a more productive employee. The purpose of the present study was to extend research in this area by further exploring the relationship between mood and productivity. This study hypothesized that participants in the positive mood group would perform better than those in the negative mood group on a complicated card sorting task. Participants were 48 Indiana University South Bend undergraduate students. Participants completed two card sorting tasks with mood being induced in between tasks through the use of two classical pieces previously validated for inducing positive and negative moods. Implications for future research are discussed.

VanderWerf, Nate
“Modular Forms Associated with K3 Surfaces in String Theory”
In order to be consistent as a quantum theory of gravity, string theory requires that our universe have additional dimensions. The extra dimensions form a particular type of geometry called Calabi-Yau manifolds. A fundamental open question in string theory over the past two decades has been the problem of constructing a direct relation between the physics on the worldsheet and the emergence of spacetime. The strategy used in our work is to use methods from arithmetic geometry to find a link between the geometry of spacetime and the structures that define the theory on the string worldsheet. The approach involves identifying modular forms that arise from the Omega and other motives of the intermediate cohomology with modular forms derived from underlying conformal field theory. The aim of this talk is to describe the first steps in our project to provide a string theoretic interpretation of modular forms derived from K3 surfaces of Brieskorn-Pham type and then see whether it is possible to extend the string analysis of these surfaces to K3 motives of higher rank. The problem involves the calculation of
number theoretic constructions called Jacobi sums. Some of the Jacobi sums form Omega orbits that can be used to construct a L-series and q-expansion. The problem then is to see if the q-expansion can be factored into Hecke-indefinite modular forms that might be of some use in understanding the relation between the worldsheet and geometry of spacetime.

Vicsek, Erica
“Vindication of the Daunted Dualist”
In contemporary philosophy, dualism is regularly considered an inadequate theory to that of materialism. This, in part, due to a current inability to scientifically substantiate the dual existence of mind and body. In my paper, I assert that a biased appeal to science aids an unjust prejudice towards materialistic tendencies. This, in turn, grants preferential treatment to materialist theories. I begin my research by expounding on the reason for which causal relations play an integral role in the mind-body problem. I then analyze causation based arguments in support of materialism presented by David Papineau (2005) and Jaegwon Kim (2001). My analysis provides an explanation for why each argument fails to be injurious to dualism which establishes cause to believe that dualism is an equally probable theory. Therefore, the vast number of materialists need not daunt the dualist because the reflections of each remain significant to the mind-body problem and the philosophical cause.

Warrell, Gregory
“The Easter Rising: British Positions and Foreign Impressions”
During Easter week of 1916, Irish nationalists, embittered with Britain’s slowness in granting promised home rule to Ireland, took matters into their own hands by seizing parts of Dublin, declaring an Irish republic independent from Britain. As Britain was still embroiled in the First World War, a conflict that was showing no sign of ending, they had planned the revolt to take advantage of the situation. Hoping for more support from their countrymen, weapons provided by Germany, and a slower British response, they could not have expected victory, but were nonetheless surprised by Britain’s harshness in putting down the rebellion. The response of the British media toward the Rising was very different from that of the press in other countries, particularly in America. The contrast between British and American journalists in reporting on this event is demonstrated by articles in The Times of London and The New York Times. Whereas The Times of London portrayed the rebels in the worst possible light, suggesting that the whole affair was planned by Germany, The New York Times seemed to imply that the Irish nationalists were heroes fighting a hopeless yet brave battle for freedom. This difference was mainly due to different views of the Rising held by different observers, and a deep-seated prejudice against Irish Catholics by the British, a feeling that had existed for centuries.

Watreas, Nancy
“The Effects of Math Studio and Fractals Class on Self-Concept and Motivation”
A report on students’ performance in math found that students in the U.S. (grades 4 and 8) are behind their international peers; with a significant weakness in performing tasks in measurement for both 4th and 8th graders and geometry for 8th
graders (Ginsburg, Cooke, Leinwand, Noell, & Pollock, 2005). Research suggests that students often measure self-worth according to their academic performance, which has been found to have profound negative effects in students who struggle with math concepts (Turner & Patrick, 2004). This study assesses the effects of creative and innovative teaching modalities on students’ self-concept and motivation to learn math. Math Studios and Fractals Classes are programs developed by Dr. Amanda Serenevy, a mathematician and Executive Director of Riverbend Community Math Center, to increase interest and understanding of mathematics in the community. The researcher argues that current school programs are not addressing many of the factors found to be contributing to students in the U.S. poor performance in mathematics. The results for this study found a relationship between extrinsic motivation (e.g. recognition, earning points for rewards) and Math Studio to exist as well as extrinsic motivation and conceptual understanding. These findings suggest the need for further research and consideration for implementing programs such as Math Studio and Fractals Class into current public school curricula.

Wise, Jennifer
“Songs of Saints and Heretics: Cultural Influences on Three Chronicles of the Albigensian Crusade”
When Pope Innocent III wrote his impassioned call to arms in 1208, thus initiating the Albigensian Crusade, he cited both Languedocian heresy and the murder of legate Peter of Castelnau as justifications for a holy war. “Attack the followers of heresy more fearlessly even than the Saracens – since they are more evil,” declared the pontiff. Traditionally, this crusade has been seen as a response to the Cathar heresy, by both contemporaries and modern historians. Yet, coursing under the standard motives of religiosity, land hunger and Catholic dominance, was a steady current of intercultural conflict between France and the Languedoc. By analyzing these cultural differences as they are given voice by four crusade chroniclers – Peter of les Vaux-de-Cernay, William of Puylaurens, Guilhem of Tudela and his anonymous continuer – “Songs of Saints and Heretics” attempts to unearth the intercultural misunderstandings that contributed to the crusade and to put them in their proper context. Thus, the Albigensian Crusade can be rightly seen as more than a war against heresy; it was a war against the Languedocian way of life.

Yoshino, Shotaro
“National Learning and Japanese Nationality”
In this paper, Yoshino discusses some of the key (translated) Japanese writings called “National Learning” (kokugaku) produced from the seventeenth to the nineteenth century which is the first serious scholarly attempt to understand ancient Japanese mythological books in their own terms, instead of applying Confucian or Chinese influenced historical standpoints. This philological school has given critical ideological views to nineteenth century revolutionaries in Japan who were able to shed the sinocentric worldviews and ultimately embrace Western civilization and modern reform of Japan without losing its moral and cultural cores. The paper contributes to an understanding of Japanese history and its divergent roots of modernization from those of China and the rest of Asia.
“Thought Paint Experiment”

Using the book Drawing from Life: The Journal as Art by Jennifer New as a guidebook and source of inspiration, the students have kept faithful visual and written journals throughout the past four weeks, focusing each week on a different purpose for journaling: observation, reflection, exploration, and creation. They then created the collaged piece you see now from those entries, looking at how their observations, reflections, explorations, and creations are not necessarily linear in time or narrative, but often these stories circle back, make leaps and collisions, and most importantly, reveal something about their own lives. Along the way, we discussed the possibility that art is both “process of creation” and “finished product,” and these projects quite often reveal that the process can take unexpected turns while developing a finished product, and that both definitions of art can certainly apply to these pieces.