

Rachel Clayton	Dundalk High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Research Question: How has violence in the media desensitized the viewing audience?</p> <p>Statement of purpose: The purpose of this research is to examine the relationship between violent news coverage, movies, television shows and cartoons and the desensitizing effect it has on the viewers. Do we become accustomed to violence in the media (shootings accidents, murder trials, etc.) and cease to be so affected? Do we find that we become on-lookers rather than activists?</p> <p>Background: I chose to research this topic because I am interested in the largely impactful effect violence has on the human psyche.</p> <p>Significance: The significance of my research is to draw the spotlight to a growing issue. If more people are aware of the effects violence is having on all generation (especially the growing ones, soon to be in control of our world) then maybe there will be more activism about it without radicalism.</p>		

Dayjana Gilyard	Dundalk High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Research Question: What impact do video games have on a child with ADHD brain?</p> <p>Statement of purpose: The purpose of this research is to find out why children with ADHD excel in video games more than they do in school. Is it just because they aren't interested in the school work or is it because of a chemical in their brain that makes them uninterested?</p> <p>Background: A lot of children have ADHD. They are unable to pay attention for long periods of time or sit still. They have a chemical imbalance in their brain that causes this. My little brother has ADHD and I have seen him struggle with his homework but figure out new video games like its nothing. My family and I always ask him how he can do so well on video games but not that well in class. I just want to be able to understand the way his brain works. My family doesn't expect him to be just like me but they know that he can do well in school if he just tries.</p> <p>Significance: The topic I am researching is significant because it allows me to see the way people with this disorder think and how their brain works. I will no longer have to wonder why my little brother excels in video games and not in school. Some kids use their disorders as an excuse because as long as you put your mind to something you can achieve it.</p>		

Alexandra Vettel	Dundalk High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Research Question: Does the USA Patriot Act contradict the Constitution? Is it too extreme?</p> <p>Statement of purpose: The purpose of this research is to find out if the USA Patriot Act goes against all of the rights in the Constitution that we have earned as Americans. Many argue that the Patriot Act is not doing enough or that it is doing too much to stop terrorist and protect our country. In some cases people cogitate that the Patriot Act has only helped stop drug and immigration cases. The civil liberties groups have raised concerns whether the Patriot Act goes too far by collecting too much data and invading people's privacy.</p> <p>Background: The USA Patriot Act was created after the 9/11 terrorist attack in 2001. The story of Barbara Olsen, the wife of Solicitor General Ted Olsen who called from Flight 77 (which was crashed into the Pentagon), gave Congress the extra measure of determination. Security experts struggled to find a way to balance concerns for liberty with the need for stronger homeland defense. Congress agreed on new legislation to make it easier to track the origin and destination of phone calls and email.</p> <p>Significance: The topic I am researching is significant because the Patriot Act affects every Americans day to day life. After 9/11, America had changed to make American citizens feel safe again. Many Americans have a variety of opinions on this topic, so I would like to develop my own opinion based on history and the facts of the Patriot Act.</p>		

Mina Al-Salihi	Eastern Technical High School	Room - 214 Lecture Session 7:15 and 8:15 p.m.
<p>Research Question: What are the effects of mutations in the Fig4 gene on Lysosomal accumulation in the nervous system of <i>Drosophila melanogaster</i>?</p> <p>Statement of purpose: The purpose of my research is to determine whether neurons have a robust phenotype that displays the Fig4 mutation.</p> <p>Background: During my eight week internship at Hopkins, I studied the role of Fig4 in the pathogenesis of Charcot-Marie-Tooth disease (CMT). I noticed that muscle cells had a robust phenotype in which one can see an accumulation of red spots, which indicates an enlargement of lysosomal-like structures. Keeping that in mind, I want to know if neurons will also display this characteristic.</p> <p>Significance: My research question is original and completely unprecedented. Although it will not find a life-changing cure, it will help advance scientists' understanding of CMT and how the disease works. After all, until this step is completed, a cure cannot be found.</p>		

Kathleen Carino	Eastern Technical High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Research Question: How does stress relate to academic performance?</p> <p>Statement of purpose: The purpose of this research is to study the correlation between stress in high school students and their academic performance. How does stress caused by factors such as pressure to do well in tests, finish college applications, and the like affect a student's performance in school? Can stress actually be good for you? How much stress is too much stress?</p> <p>Background: My desire to research this project stemmed from my interest in neurology, so I picked a research topic that would cover neurological topics such as how stress affects the brain and as a consequence how this affects a person's learning ability as demonstrated by their academic performance. Classes such as Anatomy and Physiology and AP Psychology have provided me some background on the physiology of the brain and how stress affects it. My participation in the Brain Bee has also increased my interest in doing further research on the topic.</p> <p>Significance: The topic is worth considering because the information gathered could be used to assess and possibly re-evaluate how much stress is imposed on high school students. By understanding how stress affects academic performance, school administrations can be encouraged to provide ways in alleviating the stress the student's experience, especially for seniors. The information can also be used to promote a certain amount of stress in students if it proves that some stress can be beneficial for students.</p>		

Chiamaka Ekwunazu	Eastern Technical High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Title: Inherited Genetic Modification: A Scientific Field of Opinions of High School Students.</p> <p>Statement of purpose: The purpose of this research is to determine opinions of high school students on inherited genetic modification. Questions that will be answered through this investigation are: Should the practice of inherited genetic modification be implemented in the foreseeable future, according to high school students?</p> <p>Background: This topic has been of interest to me starting from when I first heard about it in Allied Health class. This concept of deliberately modifying genes to achieve some set prototype of expressed traits appeared intriguing to me because it seems as though humans are trying to "play God" and modify the genesis of human life.</p> <p>Significance: Experimentation in order to assess the perceived correlation of implementation of genetic modification and its effects upon diversity will help determine the possible effects of genetic modification conducted by scientists and thus further advocate or condone the implementation of these methods. If this correlation is discovered, the probable detrimental effects of diminished diversity in the human sphere can be analyzed. The knowledge based of the human race would be severely limited, and humans would suffer as a result due to decreased creativity, ingenuity, and inventions.</p>		

Chloe Gudmundsson	Eastern Technical High School	Room – 225 Lecture Session 7:15 and 8:15 p.m.
<p>Title: The Neglect of Maximilian Godefroy</p> <p>Statement of purpose: This project aims to discover why Maximilian Godefroy, the architect of Battle Monument, was not well-recognized for his architecture, and why, to this day, he and his architecture still face neglect from a historical standpoint.</p> <p>Background: I have researched the history of Battle Monument, looking through archives of the Maryland Historical Society, examining resources available online through the Library of Congress, and researching through other sources. The most intriguing part of my research was Godefroy's background as an unsung hero in both France and the U.S.</p> <p>Significance: This topic would be very informative about the architect and the monument, and it almost coincides perfectly with the bicentennial anniversaries of the War of 1812 and the Battle of Baltimore. I hope to learn more about Godefroy, the monument, and Maryland's history in general. This project will add to the very limited and murky knowledge base of the Background of Godefroy. I hope to bring more appreciation and understanding to the work and life of Godefroy. This paper could be used as a reference for anyone interested in learning more about Maryland's history.</p>		

Himadri Patel	Eastern Technical High School	Room – 219 Lecture Session 7:15 and 8:15 p.m.
<p>Research Question: Is there a quantitative difference between the Fox-3 localization to the cytoplasm in HIV positive individuals with HAND and HIV positive and negative individuals without neurocognitive impairments?</p> <p>Statement of Purpose: The purpose of this experiment is to determine and prove if there is a quantitative difference in the Fox-3 localization in three distinct categories of patients mentioned in the research question. Also, this experiment will prove the observations of researchers studying the role of OPN (Osteopontin) in neuronal degeneration.</p> <p>Background: HAND, often classified as a group of disorders, is the impairment of the central and peripheral nervous systems caused by the complications of the HIV infection. It infects the glial cells as well as the structure and function of the various parts of the brain such as the parietal and temporal lobes. Some of the signs and symptoms of HAND are reduced speed of information processing, decline in memory, tremors, bradykinesia, hand agility, and loss of sensory perception. Scientists studying this group of disorders identified NeuN (Neuronal Nuclei), an antigen detected in the nucleus of neurons in a wide range of vertebrates. Therefore, it is widely used as a tool for detecting neuronal cells. NeuN has been recently identified as Fox-3, a new member of the Fox-1 gene family of splicing factors. The series of interactions between NeuN and Fox-3 are important for a process called alternative splicing in the nucleus of almost any cell.</p> <p>Significance: Based on the findings of this study, it will be possible for researchers to better understand the importance of NeuN and Fox-3 in the neuronal degeneration caused by HAND and the further complications of HIV. We hope that it will also serve as basis for further analysis into this topic.</p>		

Drew Wagner	Loch Raven High School	Room – 218 Lecture Session 7:15 and 8:15 p.m.
<p>Title: <i>LearnChief</i> - Innovative Learning Solutions</p> <p>Statement of purpose: I am pursuing this project because I recognize a marketable problem in education. I see a need for students and teachers to collaborate and share material and knowledge with their peers. I have learned that too many teachers are left re-creating the wheel in terms of lesson planning. Students and teachers must be collaborating outside their own schools and school districts in order to sufficiently solve these problems. I see an opportunity to disrupt the education market while also enhancing the teacher lesson planning process and make the student online education learning experience more efficient and effective.</p> <p>Background: I have attended public schools up to 8th grade. From 9-11th grade I attended Calvert Hall (private Catholic high school). Therefore I have been a part of numerous different types of educational institutions. I have also had many experiences in dealing with a vast range of both students and teachers. I have interviewed and surveyed students about how they learn and have also interviewed and surveyed teachers about different teaching techniques and services already in the marketplace</p> <p>Significance: My product will help teachers expand their horizons and learn from their colleagues. This tool can be utilized to help teachers receive feedback on their lesson before presenting it to the class, or used to access content from other users. Teachers will benefit because they will be better prepared and will have more in depth, vetted material to present to students. Students will benefit from having access to other students notes, and materials. Students will also have the opportunity to learn from teachers other than their own.</p>		

Bryan Ateo-An	Parkville High School	Room - Library – Computer Lab Alcove Poster Session 7:45 – 8:15 p.m.
<p>Title: Human Mechanization</p> <p>Statement of purpose: When I went to work with my mother, who works as a nurse, I would always pass by people who have had injuries and sicknesses. Then during the 2012 Summer Olympics I watched Oscar Pistorius run the 400 meter dash. To compete in the Olympics Pistorius must have beaten a number of able bodied competitors. The man with no legs can run faster than some of the most conditioned athletes. This made me wonder is the human body obsolete?</p> <p>Background: Replacing human body parts have been done throughout history. Chinese soldiers would attach sticks on their limbs to replace the amputated one. Through research and development that stick has become a synthetic limb. Some are designed for specific task such as: Pistorius's limbs designed for running.</p> <p>Significance: Replacing one's self with mechanical body parts raises moral issues. At what point is one no longer human? Pistorius has been accused of having an unfair advantage with his prosthetic legs. Is there a place in society for people with extremely modified bodies? Amputees often go through psychological problems once they are amputated. Making synthetic limbs can return the amputee's lost limb and bring back his or her contribution to society. The paper will help in defining what are the effects of having prosthetics that could be better than its organic counterpart. It will also help amputees, such as soldiers who lost their limbs or children who were born with no limbs, get back their independence.</p>		

Kayleigh Harper	Parkville High School	Room – 215 Lecture Session 7:15 and 8:15 p.m.
<p>Title: In the Face of Change: Photography in the Era of Instagram</p> <p>Statement of purpose: I have observed a trend online and in my photography classes. The heavy use of filters and apparent lack of effort bother me. Then I noticed that many students were mimicking those Instagram effects in photoshop. I began to wonder if this was the new accepted aesthetic for photography.</p> <p>Background: I have read accounts from professional photographers and photography professors at important institutions. Their opinions on Instagram varied. I have learned that there is a complicated dynamic I need to explore before I can postulate about the overall effect of the application.</p> <p>Significance: Instagram's popularity either has affected or will affect the perception of photography as art (and as a career). The perception of art influences the way our society behaves in certain ways.</p>		

Shakira Rollins	Parkville High School	Room – 222 Lecture Session 7:15 and 8:15 p.m.
<p>Title: Dreams & Memory</p> <p>Statement of purpose: The purpose is to describe and answer numerous questions about how dreams and memory are related.</p> <p>Background: I have found out that there are numerous websites, but not every website was accurate or reliable. There are many sources on the BCPS website that gives me articles on the topic that I am using. I also found articles from college/university websites that are accurate as well as information from sleep studies. Each of these have the same information provided and are good references.</p> <p>Significance: It is significant because many dreams are sometimes forgotten, and we are not sure how to explain what happens while we are sleeping.</p>		

Sierra Slide	Parkville High School	Room - Library – Reference Poster Session 7:45 – 8:15 p.m.
<p>Title: DNA Analysis</p> <p>Statement of purpose: I chose to research DNA because I enjoy learning about how DNA is able to tell us so much about a human being. I spend most of my time watching Law & Order. The results that I will get from this topic will not only impact me but others who also need to know how to conduct DNA.</p> <p>Background: The most powerful type of method to use is mtDNA. It is able to trace a person during a crime scene. People have been using this way for many years but the process for results takes a very long time.</p> <p>Significance: This will benefit society by helping people, for example in court rooms, police, FBI being able to find who they are looking for right away because they would not have to wait for a long period of time for results.</p>		

Brenna Washington	Parkville High School	Room - Library - Computer Lab Poster Session 7:45 – 8:15 p.m.
<p>Title: Combination Treatment Method for Depression</p> <p>Statement of purpose: I chose to research more into treatment methods for depression because I find mental health extremely interesting. Another reason is because I have suffered with major depression for as long as I can remember. The results I get from my research can not only benefit me, but others who also suffer with this disorder.</p> <p>Background: Scientists have been studying mental illnesses for years. Treatment methods have greatly improved over time. Some of the first antipsychotic medications were Thorazine, Haldol, Clazopine, Prolixin, Navane, Lithium, and Mellaril. Scientists and researches soon realized that most of these medications caused dangerous side effects.</p> <p>Significance: I am currently surveying information to create a combination treatment for depression by using specific medications and cognitive therapy.</p>		

Daniel Ertel	Perry Hall High School	Room - Library – Nonfiction Poster Session 7:45 – 8:15 p.m.
<p>Title: Supplemental Educational Services in No Child Left Behind and Its Value in Raising Academic Achievement Levels in Baltimore County Public Schools</p> <p>Statement of purpose: No Child Left Behind or NCLB is a federal mandate created to identify under-performing schools and to improve the quality of education of all students. States are required to set goals for overall academic achievement and for specific categories of students. These goals determine whether the school makes "adequate yearly progress," or AYP, as measured by state standardized tests. A school can fail even if it meets goals for most of its students if one category of students cannot meet the standards. If a school continues to fail to meet AYP, these sanctions take effect: After three consecutive years, the school must also provide "supplemental education services," or SES, to children who remain at the school. Those services can include tutoring, remedial classes, after-school services and summer school programs (Greatschools Staff). Maryland has recently been given a waiver which means that the school districts do not have to follow the requirements of NCLB. One of the past methods used to raise achievement in failing Title I schools was SES. How does SES in BCPS compare with other states? Is SES effective for improving academic achievement?</p> <p>Background: I have been researching in the independent research class about No Child Left Behind and the programs (supplemental educational services and school choice) within the act in Baltimore County Public Schools. I have also learned about the budgeting portion of NCLB by going to a pre-budget hearing and listening to people's concerns about school choice option and how transportation may be revoked for the upcoming school year. I am interested in this topic because my whole school career has been based on this act and I would like to see if it has been successful through supplemental educational programs. How does the experience at BCPS differ from other school districts?</p> <p>Significance: I think this topic is worth considering because once I complete my final project it will provide a student perspective on a serious subject decided by veteran educators in the school system. I might want to share my information with the BCPS administration to show them how cost effective supplemental educational services are.</p>		

Megan Lineweaver	Perry Hall High School	Room - Library – Computer Lab Alcove Poster Session 7:45 – 8:15 p.m.
<p>Title: Restoring Native Ecosystems Health to Combat Invasive Species</p> <p>Statement of purpose: In the beginning of this course my main questions were why this particular species (the Northern Snakehead) has been so successful in Maryland waters and why the state of Maryland is so concerned about it. As the close of the course came, I turned my focus to finding a solution to problems posed by the Northern Snakehead. By looking at other instances of invasive species and seeing how each instance was handled I have come up with a proposal on how to control the established Northern Snakehead in the Potomac River.</p> <p>Background: For as long as I can remember I have been interested in the environment, both the animals and the plants. The specific topic of invasive species is something that affects the environment and may have a negative impact on the native areas, so researching the Northern Snakehead is relevant to my local area. The topic of invasive species has been covered briefly in my classes (both in school and out of school). This is the first time I have really focused on an aquatic species but I have seen National Geographic Wildlife documentaries on other invasive species such as the hybrid boars in the US.</p> <p>Significance: When a new species is introduced to an environment it can make drastic changes in the food chains. If a new predator is introduced, it can wipe out the lower level animals that feed the native species and starve them out. This problem can lead to endangering native aquatics that the local fishers depend on for their livelihoods and also ruin an entire ecosystem. The Northern Snakehead is a relevant example of this in the Maryland area since it could threaten other fish such as the Largemouth Bass, Yellow Perch, and the already endangered American Eel With this project I have hoped to be able to find possible solutions that can be used to help control the Northern Snakehead in the Potomac. If other areas have successfully controlled or found a solution for the invasive species that threaten their waterways, perhaps this knowledge could be used to prevent the Northern Snakeheads form doing permanent damage to their nonnative ecosystems in the Potomac River.</p>		

Ajay V. Mahesh	Perry Hall High School	Room – 220 Lecture Session 7:15 and 8:15 p.m.
<p>Title: Evaluation of Dose Reduction and Image Quality in CT Using Sinogram-Affirmed Iterative Reconstruction (SAFIRE)</p> <p>Statement of purpose: I hope to find whether SAFIRE can reduce radiation and can be used in hospitals as a viable reconstruction method. *Can the combination of SAFIRE and other radiation reducing techniques further reduce radiation but maintain acceptable image quality?</p> <p>Background: My dad is a medical physicist at Johns Hopkins who specializes in the field of CT scanners and radiation safety. I have also interned at Johns Hopkins University Biomedical Department studying the effectiveness of a CT scanner and learning about CT scanners. While I was interning, I researched about the development of CT scanners and how CT scanners function. This led me on a journey to find more information about radiation and CT scanners.</p> <p>Significance: CT scanners have been on the news and the general public's mind since the Fukushima disaster about excessive radiation and the TSA using CT scanners at airports. By researching the effectiveness of this new reconstruction technique (SAFIRE), the general public can learn more information about how SAFIRE reduces radiation and alleviate the fears and tension among the people about medical scans and radiation. Researchers can use my paper as a reference about SAFIRE reconstruction and try to use my paper to prove that SAFIRE reconstruction method can be used in hospitals/general public areas. The new knowledge obtained from my research can help the medical field by providing another reconstruction method that provides image quality and reduces radiation dosage better than the conventionally used reconstruction technique Filter Back Projection (FBP). I believe medical physicists, radiologists, doctors or anyone in the medical field can benefit from my research and share my research with others.</p>		

Caitlin Seluzicki	Perry Hall High School	Room – 223 Lecture Session 7:15 and 8:15 p.m.
<p>Title: The Impact of Music on Cognition in Alzheimer's Patients</p> <p>Statement of purpose: I hope that my research will reveal that music is an effective treatment to improve cognition in people suffering from Alzheimer's disease.</p> <ul style="list-style-type: none"> * If the P3 or N4 waves of the brain are strengthened, will it prevent or slow deterioration of the brain in Alzheimer's patients? * Can musical training prevent musicians from developing Alzheimer's? * Can music making prevent further cognitive decline in Alzheimer's patients? * Can music become the next top choice in treatment for Alzheimer's patients? <p>Background: I became very interested in this topic in middle school band when my band teacher, Mrs. Clavell told our band class about a past professor that researched music and the brain. This immediately interested me and I had always thought about this and would research online about the topic occasionally. When I discovered in high school that I could take a course in which I could research this topic for an entire year, I immediately wanted to take the class. When I researched music and its impact on the brain, I found a book titled "This is Your Brain on Music." This book was very interesting and I think I will read it again for my research.</p> <p>Significance: I hope to explain in my research how music therapy or musical training may be more beneficial for the treatment of Alzheimer's than cognitive enhancers for Alzheimer's patients because the cognitive enhancers have side effects, which exacerbate the agitation and irritation that Alzheimer's patients feel. Also, I hope to reveal the impact of music and how it improves cognition in Alzheimer's patients. Music may have the ability to not only improve quality of life by improving mood, but by possibly slowing the progression of Alzheimer's.</p>		

Cole Charyszyn	Randallstown High School	Room - Library – Nonfiction Poster Session 7:45 – 8:15 p.m.
<p>Research Question: Marijuana Versus Tobacco: Why is One Legal While One Isn't? What are the Benefits to Society of Legalizing Marijuana?</p> <p>Statement of purpose: I want to educate people about tobacco and marijuana, and I want to delve into reasons for legalizing marijuana for medicinal purposes. I want to present facts about the dangers of tobacco and question why it's legal, versus comparisons and contrasts to marijuana, which also can be dangerous. However, marijuana could improve the quality of life for some, if used medicinally. I also hope to learn what's involved (the path through the MD legislature) of the legalizing of marijuana for medicinal purposes.</p> <p>Background: A relative of mine died from lung cancer at a young age, and her death was directly related to smoking cigarettes. As a result, I have a bias against tobacco and feel it has no benefit to society except bringing in money to the state. In addition, I want to study nursing in college, so I'm interested in how people in pain or who are dying could possibly have their discomfort relieved by using marijuana. In addition, I have asthma and have to use my inhaler at least twice a day. I've read that some asthma symptoms may be relieved by using marijuana, so I'm curious in researching why the illegal drug is so controversial if it could make some people's lives more pain free.</p> <p>Significance: This topic will educate people, specifically teens, on the dangers of tobacco and marijuana along with the possible health benefits for some people using marijuana to relieve discomfort or pain. Legalization of marijuana as medicine would improve some people's quality of life and help them retain their dignity.</p>		

Isaac Colbert	Randallstown High School	Room - Library – Nonfiction Poster Session 7:45 – 8:15 p.m.
<p>Title: Economical Benefits of Educating Youth on Diabetes Prevention</p> <p>Statement of purpose: I hope to help youth and particularly children of diabetics become more aware of ways to prevent or postpone the onset of diabetes. In addition, they'll become aware of the expenses involved in being diabetic. I also hope to promote the benefits of a healthy lifestyle, including how healthy living can save money.</p> <p>Background: I'm interested in learning more about diabetes because my father has Type 2 diabetes, and there are other family members who have the disease. Thus, the genetic component concerns me, especially as my dad is physically fit and lives a healthy lifestyle. In addition, I enjoy science, and I also like economics. I see there's a connection between controlling diabetes and economics, and because of my personal connection, I'm interested in finding out more information.</p> <p>Significance: My research on diabetes prevention in young people will encourage many people, including parents, to live healthier lifestyles. As a result, many families won't be impacted as much financially and emotionally by diabetes.</p>		

Marcus McCall	Randallstown High School	Room - Library – Nonfiction Poster Session 7:45 – 8:15 p.m.
<p>Title: Educational Strategies for Assisting Students Who Have Personal Obstacles Which Hinder Learning</p> <p>Statement of purpose: I want to study how a negative school experience can influence someone's future life. Does a child who has a bad experience in school have a higher chance of becoming incarcerated versus the student who has a positive school experience? What can teachers, administrators and counselors do to help children from troubled families who bring their problems into the classroom? What programs are available in Baltimore County schools to help at-risk students?</p> <p>Background: I'm interested in this topic because my mom taught in public schools and told me stories of students who did poorly in school. Some ended up incarcerated or in dead end jobs. In addition, my stepbrother was incarcerated and he has emphasized to me the importance of staying in school and doing well. I've become interested in how negative experiences in school can lead to future problems. And watching troubled kids in my school has made me interested in finding out what programs are available to help them.</p> <p>Significance: The information I find could improve the lives of young people or even save them from incarceration or troubled lives once they leave high school. Teachers could become more aware of available programs when dealing with difficult students.</p>		

Mallori Reed	Randallstown High School	Room - Library – Computer Lab Poster Session 7:45 – 8:15 p.m.
<p>Research Question: How has gentrification in Baltimore City affected street art?</p> <p>Statement of purpose: Cities have a voice which is sometimes reflected through its art. I hope to analyze some of the areas in Baltimore where there is street art, and analyze the art’s meaning to understand if the art reflects the neighborhoods or influences people in the neighborhoods. And as the city has changed through gentrification, how, has the street art changed? Did gentrification change the meaning behind the art? Does the street art that’s been done after gentrification reflect the old or the new culture/population?</p> <p>Background: Baltimore City is home to various street murals and other public displays of artwork. I grew up in Edmondson Village in Baltimore City, and I’ve always been fascinated in the street art on the sides of buildings in Baltimore. I’ve taken art classes to learn more, but I’m specifically interested in the uniqueness, history and meaning of street art. Why was it created? Were the artists trying to bring together diverse groups, or did they want people to draw their own conclusions about the art? I’m also interested in how and why Baltimore’s population has changed throughout the years, and I’m curious to how changes in the city’s population influenced street art. I grew up in the city, so I’m curious to find out the history of street art in Baltimore City.</p> <p>Significance: Art helps us expand our creativity and imagination. Many people in cities are lower socioeconomic groups living in poor conditions, so street art could lead to changing their lives for the better. Street art could expand their minds, and they could imagine life outside of their community, or they could broaden their horizons and reach for higher goals, like doing better in school and pursue higher education. I want to find out if the gentrification of Baltimore has influenced street art.</p>		

Ed Fullerton	Towson High School	Room – 221 Lecture Session 7:15 and 8:15 p.m.
<p>Title: An Examination of the Modern Relevance of Clausewitz's on War</p> <p>Statement of purpose: To determine if Clausewitz's dictums from his essay “On War” still apply to armed conflicts, both conventional and irregular, given the massive changes in technology and the rise of non-state actors.</p> <p>Background: Carl von Clausewitz (1780-1831) was a Prussian General and military theorist. He wrote “On War” in response to his experiences in the Napoleonic War. He unified political will, the will of the people, and the will of soldiers into his "paradoxical trinity." Furthermore, he advocated that war was an extension of diplomacy and that its primary purpose was to force the opposing party to submit to the will of the other. Tactically, he advocated for large bloody engagements ("the primacy of slaughter" in his words) to eliminate the opposition's military and leave them no choice but to submit. He has been used extensively by the US to justify the strategy in Vietnam, Iraq, and Afghanistan, where the emphasis has been on finding and killing insurgents as per the "primacy of slaughter" and not removing the insurgent's support as others have suggested.</p> <p>Significance: Clausewitz has been used to justify US military strategy for the past 50 years, including the recent engagement in Iraq. If Clausewitz is no longer applicable, then the US must change its tactical and strategic doctrine to fit the modern era.</p>		

Helen Galvin Ross	Towson High School	Room – 224 Lecture Session 7:15 and 8:15 p.m.
<p>Title: The Acquisition of Clitic Pronouns in L1 French-Speaking Children: An Algebraic Analysis</p> <p>Statement of purpose: The role of clitic pronouns as direct object in French can be modeled, as can any formal language, through algebraic formulae and models. I aim to develop these formulae to model the clitic pronouns role in the language and then, as a further step, develop algorithms to model their acquisition by native French-speaking children.</p> <p>Background: An L1 language is the first language acquired by a child. A clitic pronoun in any language is a word that cannot act on its own, and must be attached to either a noun or a verb. In English, "the" and "a/an" are clitic pronouns, and in French, the direct object clitics "le" (m. sing.), "la" (f. sing), and "les" (pl) must precede the transitive verb taking them as an object. A formal language is any language that can be modeled mathematically. All spoken languages, when spoken "grammatically" (i.e., in a uniform style that can be understood without effort by native speakers of that language), are formal languages, but so too are many artificially developed formal languages, often used in the development of axioms in the mathematical field of number theory.</p> <p>Significance: The ability to model language as formal grammars has wide-sweeping implications in the field of cognitive science. In the subfield of linguistics, it will provide a jumping-off point for other researchers interested in the acquisition of clitic pronouns in any language, and will provide methods that will make their work easier. In Artificial Intelligence, the quantifying of language and its acquisition will make the acquisition of language by computers and computer programs easier to program. In psychology, quantified language development can provide quantative evidence if a child is not developing language on a timetable the algorithms show to be normal.</p>		

Sepalika Wijeratne	Towson High School	Room – 216 Lecture Session 7:15 and 8:15 p.m.
<p>Title: Captivating the Captivated: An Enrichment Program for Zoo Animals</p> <p>Statement of purpose: The purpose is to find a method to decrease the prevalence of the unnatural and unhealthy behavior by animals in captivity.</p> <p>Background: I volunteer at the Baltimore Zoo in Maryland where I observed captive animals adapting to their new environment. The lack of stimulating activity caused the animals to resort to abnormal and harmful behavior.</p> <p>Significance: For animals in zoo settings, negative stress (distress) can result in impaired health and mortality over the long term. Stress caused by factors other than being placed in an artificial environment surrounded by humans is not healthy. It is important to keep the animals positively active when in captivity.</p>		